

Springfield Interchange Construction Project Commuter Research

January 10, 2003



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Background and Objectives

Background

- This project is designed to assess commuter reaction to on-going construction at the Springfield Interchange
- It is a follow-up study to one conducted prior to start of the construction in the spring of 1998

Objectives

- This research is designed to meet the following objectives:
 - Determine current imagery of the project
 - Assess the extent to which the construction project has necessitated commuting changes
 - Identify, to the extent possible, the "trigger" of behavioral changes
 - Assess the extent to which there have been changes in commuters' decision-making priorities
 - Assess expectations about the future impact of the project
 - Assess the perceived importance of and support for the construction project
 - Determine perceptions of VDOT's management of the project and communication of the project

- A telephone survey was conducted among commuters in Northern Virginia who travel through the Springfield Interchange
- All respondents:
 - Had to be at least 18 years of age
 - Had to travel in a single occupancy vehicle, carpool, vanpool, train or bus -- or could telework
- Interviews were conducted from August 26 November 17

• In the 1998 study, respondents were classified according to 3 groups:

	Completed
	<u>Interviews</u>
Spotsylvania/Central Stafford I-95 rush hour	504
Prince William/Northern Stafford I-95 rush hour	502
Fairfax County I-95 rush hour	505

• The 1998 data were weighted to reflect the actual incidence of Springfield Interchange commuters from each of these areas.

• In 2002, the universe was expanded to include both I-95 and I-495 rush-hour commuters and non-rush hour commuters as well as transit and telework commuters. Quota groups were established:

	Targeted	Actual
	Completes	Completes
Spotsylvania/Central Stafford I-95 rush hour	400	402
Prince William/Northern Stafford I-95 rush hour	400	400
Fairfax County I-95 rush hour	400	462
I-495 rush hour	400	331
Non-rush hour	200	308
Transit commuters and telework	<u>100</u>	<u>114</u> *
	1900	1903

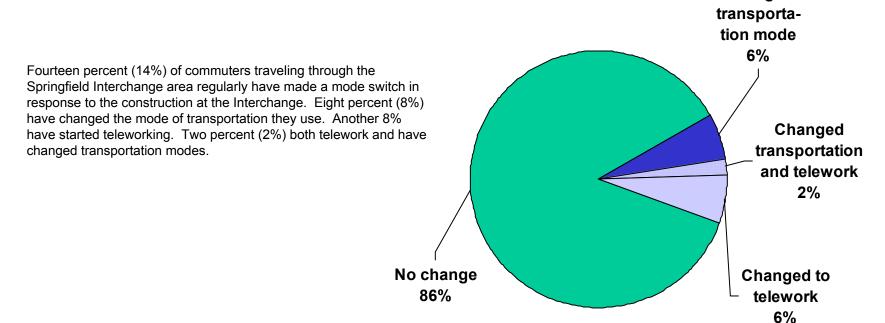
^{*}Transit and telework commuters are also classified in the other categories. These respondents are already included in the total sample of 1903.

- Just as in 1998, the 2002 data are weighted to reflect incidence rates for each of the subgroups.
- Because the sample definition has changed this year to include I-495 commuters and non-rush-hour commuters, the totals from 1998 and 2002 are not entirely comparable.
 Therefore, in the data analyzed in this report, two "totals" for 2002 are reported. One total includes all subgroups: I-95 and I-495 rush hour and I-95 and I-495 non-rush-hour commuters. Another total, including only I-95 rush hour commuters, is comparable to the total reported in 1998.
- In this year's study, commuters are also classified as to whether they "switched" transportation modes in response to the Springfield Interchange construction. A total of 286 "mode switchers" are included in this survey.

Detailed Findings

Impact on Commuting Behavior

Commute Mode Switch in Response to Springfield Interchange Construction



Data from Q28: In response to the construction at the Springfield Interchange, how, if at all, have you changed the way in which you travel through the area? Have you/Do you _____? (READ LIST.)

Changed

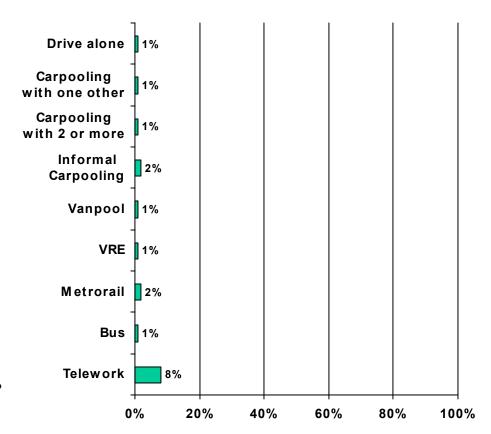
Mode Switching

A variety of transportation types are needed to meet the needs of Springfield Interchange commuters. No one type of transportation dominates mode-switching behavior. All transportation modes have attracted some commuters.

Interestingly, teleworking is an option that has appealed to and attracted 8% of Springfield Interchange commuters.

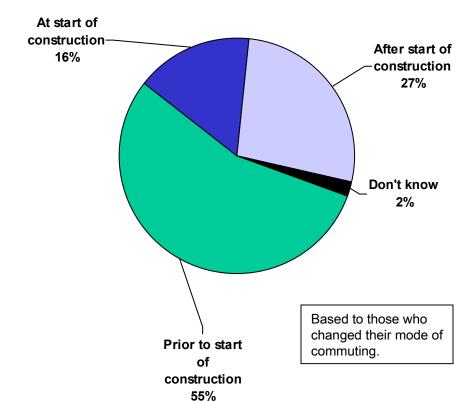
Note: In the attached graph, "drive alone" includes only those commuters who drive alone and use no other form of transportation. In the other transportation modes listed, some commuters might also drive alone. For example, a commuter who uses VRE might drive alone to a Park-and-Ride lot for part of the trip.

Data from Q5: Which of the following transportation modes do you use when traveling through this area during a typical week? (READ LIST.)



Time of Switch

Mode switches occurred prior to the start of the construction (55%), at the start of construction (16%) and after the construction had begun (27%).



Data from Q7: Which of the following best describes when you started (INSERT TRANSPORTATION MODE)? (READ LIST.)

Reasons For Switching Modes

Most frequently, those who drive alone report that it is due to their work schedule.

Carpoolers often use this form of transportation to save time. They report that they carpool in order to travel "faster" or to use the HOV lanes.

Those who commute by bus often seem to find it a convenient way to commute.

Commuters who choose to vanpool, take VRE or Metrorail report that these means of transportation are convenient. Those who vanpool also find this form of transportation a way of saving money.

Those who telework find it more convenient and faster than actually driving to their regular destination.

Commuters who use any form of alternative transportation -- that is, those who do not drive alone -- seem to be particularly sensitive to the high volume of traffic. They often explained their commute decisions simply by mentioning the high volume of traffic. These responses have been coded as "traffic/cut down on traffic." Some respondents simply stated "too much traffic." Others seemed to express a desire to decrease the traffic volume. For example, one such respondent said, "to relieve some of the burden for the travel through the area." Others seemed to be referring to the "stress" they experienced from the traffic, although they never used the word "stress." One said, for example, "because I did not want to have to deal with traffic."

See table on following page.

Reasons For Switching Modes

	Drive	Carpool	Carpool	Informal						
	alone	with 1	<u>with 2 or +</u>	<u>carpool</u>	<u>Vanpool</u>	<u>VRE</u>	<u>Metrorail</u>	<u>Bus</u>	<u>Telework</u>	<u>_</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
Work schedule	41	-	-	6	1	1	-	6	-	-
No one to ride with	13	-	_	-		-	-	-	-	-
Convenient	2	7	-	11	3	4 2	3	16	12	30
Going my way	-	13	-	4		_	-	-	-	-
To use HOV lanes	-	21	32	14	1	1	-	-	-	-
Save gas	-	20	13	-		_	-	-	-	-
Faster	1	23	10	20	1	1	-	5	3	20
Traffic/Cut down on traffic	1	17	7	10	2	8 2	6	35	14	20
Saves money	<1	-	_	6	4	5	-	-	3	-
Saves car	-	-	_	4		_	5	-	-	-

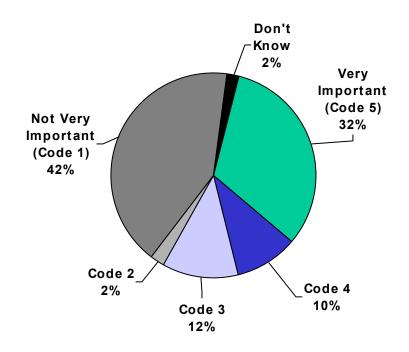
Data from Q7b: Why did you start (INSERT TRANSPORTATION MODE)?

Importance of Park-and-Ride for Switching to Carpooling

Park-and-Ride lots played an important role for nearly one-half of those who switched to carpooling. Forty-two percent (42%) of those who switched to carpooling said that the Park-and-Ride lots played an important role in that switch. Nearly one-third of those who switched to carpooling (32%) said that Park-and-Ride lots played a very important role in that decision.

Interestingly, Park-and-Ride lots either played an important role in the decision to carpool or they played virtually no role. Forty-two percent (42%) of those who switched to carpooling said that Park-and-Ride lots were not very important in their decision to carpool.

Data from Q8: In order for you to decide to carpool, how important was the availability of increased commuter parking?

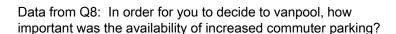


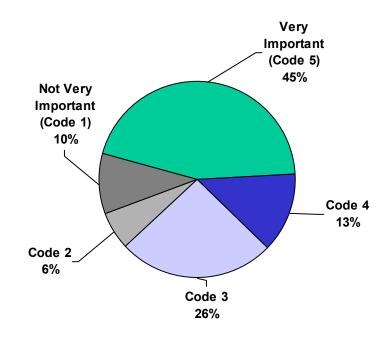
Based to those who switched to carpooling.

Importance of Park-and-Ride for Switching to Vanpooling

Park-and-Ride lots were particularly important in commuters' decisions to start commuting in a vanpool. Fifty-eight percent (58%) of those who switched to vanpooling said that Park-and-Ride lots were important in that decision. Nearly one-half (45%) said that Park-and-Ride lots were <u>very</u> important.

Only 10% of the vanpool switchers said that Park-and-Ride lots were not very important in their decision to start commuting in a vanpool.





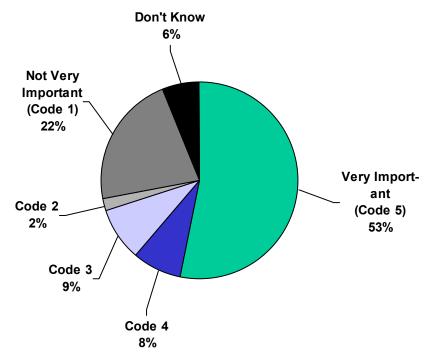
Based to those who switched to vanpooling. Small base size; interpret with caution.

Importance of Park-and-Ride for Switching to VRE or Metro

Commuter parking played an important role in the decision of those who decided to switch to VRE or Metro. More than six of every ten (61%) who switched to VRE or Metro said that commuter parking was important in their decision. In fact, the availability of commuter parking was <u>very</u> important to over half (53%) of those who switched to Metro or VRE.

In contrast, commuter parking was not very important to about one-fourth (22%) of those who switched to VRE or Metro.

Data from Q8: In order for you to decide to take the VRE/Metro, how important was the availability of increased commuter parking?

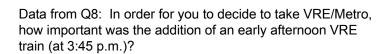


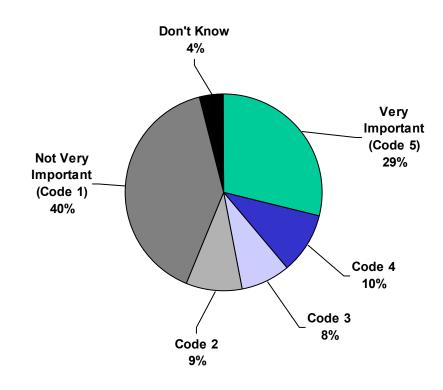
Based to those who switched to VRE or Metro.

Importance of an <u>Early Afternoon VRE</u> <u>Train</u> for Switching to VRE or Metro

The addition of an early afternoon VRE train was important to 39% of those who switched to VRE or Metro. In fact, it was very important for nearly 3 out of 10 of those who switched (29%).

In contrast, the addition of an early afternoon train was not important in the decision of 40% (response Code 1) of those who switched to VRE or Metro.



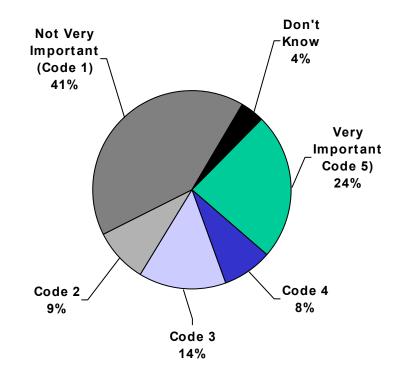


Based to those who switched to VRE or Metro.

Importance of Shuttle to Franconia/ Springfield from Springfield Mall for Switching to Metro

The availability of the Franconia/Springfield shuttle was important (Codes 5 or 4) for about one-third (32%) of commuters who switched to Metro. In contrast, it was not very important to 41% of those who switched to Metro.

Data from Q8: In order for you to decide to take the Metro, how important was the addition of a shuttle to the Franconia/Springfield Metro from the Macy's parking deck at Springfield Mall?

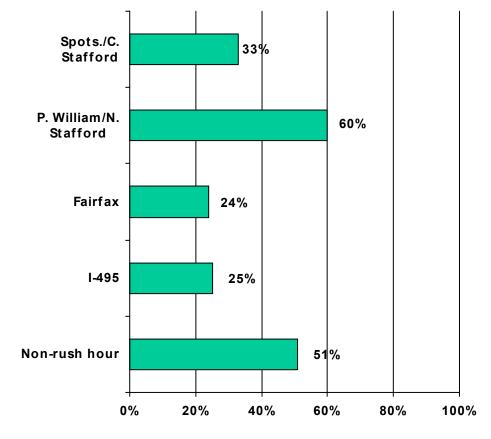


Based to those who switched to Metro.

Importance of Shuttle to Franconia/ Springfield from Springfield Mall for Switching to Metro

- By "Corridor" -

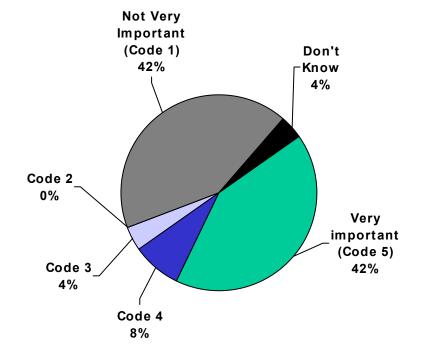
The shuttle to Franconia / Springfield had the greatest impact on I-95 commuters coming from Prince William / Northern Stafford.



Data from Q8: In order for you to decide to take the Metro, how important was the addition of a shuttle to the Franconia/Springfield Metro from the Macy's parking deck at Springfield Mall?

Importance of Reduced Cost Rail Pass for Those Who Take Bus to Metro for Switching to Metro

One-half (50%) of those who switched to Metro were impacted by the reduced cost rail pass. Similarly, 42% of those who take the bus to the Metro said that the reduced rail pass was not very important in their decision to switch to Metro.

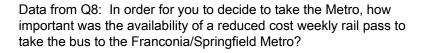


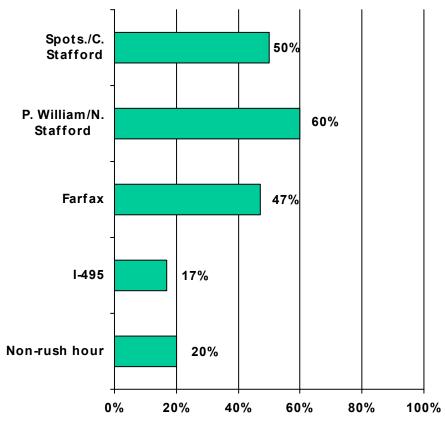
Data from Q8: In order for you to decide to take the Metro, how important was the availability of a reduced cost weekly rail pass for the bus to the Franconia/Springfield Metro?

Importance of Reduced Cost Rail Pass for Those Who Take Bus to Metro for Switching to Metro

- By "Corridor" -

As would be expected, the reduced cost rail pass was most important to rush-hour commuters on I-95 -- particularly those commuting from Prince William / Northern Stafford. Sixty percent (60%) of those commuters who switched to the Metro said that the reduced cost rail pass was important to their decision.

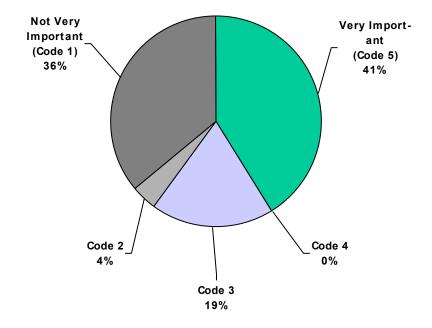




Top-2-box score. Based to those who switched to Metro. Small base size; interpret with caution.

Importance of <u>Additional Park-and-Ride</u> <u>Lots</u> for Switching to Bus

Additional Park-and-Ride lots played a very important role among 41% of commuters who switched to the bus. More than 4 of 10 (41%) of the commuters who switched said that additional Park-and-Ride lots were very important in their decision to switch to the bus. About the same proportion, 36% said that additional Park-and-Ride lots were not very important in their decision to switch to the bus.

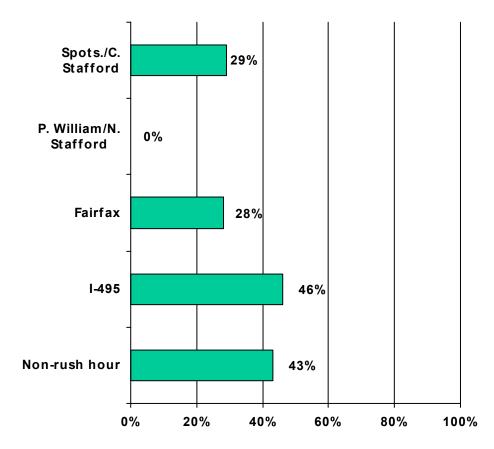


Data from Q8: In order for you to decide to take the bus, how important was the availability of additional Park-and-Ride lots?

Based to those who switched to the bus. Small base size; interpret with caution.

Importance of <u>Additional Park-and-Ride</u> <u>Lots</u> for Switching to Bus - By "Corridor" -

The addition of Park-and-Ride lots was most important to I-495 (46%) commuters and non-rush hour commuters (43%) in switching to the bus.

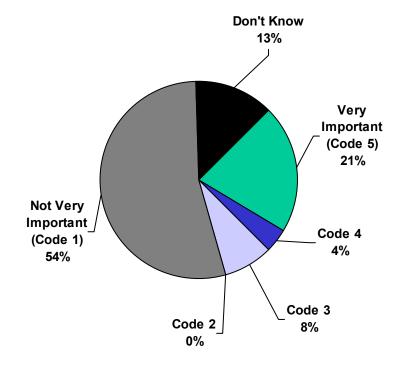


Data from Q8: In order for you to decide to take the bus, how important was the availability of additional Park-and-Ride lots?

Top-2-box score. Based to those who switched to bus. Small base size; interpret with caution.

Importance of Addition of Shuttle to Franconia/Springfield Metro from Springfield Mall for Switching to Bus

The addition of this shuttle was important to 25% (Codes 5 and 4) of those switching to the bus. In contrast, it was not important to 54% of those who switched to the bus.



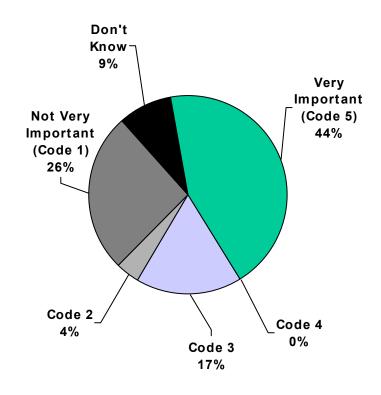
Data from Q8: In order for you to decide to take the bus, how important was the addition of a shuttle to the Franconia/Springfield Metro from the Macy's parking deck at Springfield Mall?

Based to those who switched to bus. Small base size; interpret with caution.

Importance of Reduced Cost Pass for Bus to Franconia/Springfield Metro for Taking Bus

The reduced cost pass has played a role in the decision of some commuters to take the bus. Nearly half (44%) of those who take the bus said the reduced cost pass for the bus to Franconia/Metro was very important in their decision. Only 26% who take the bus indicated that the reduced cost pass was not very important.

Data from Q8: In order for you to decide to take the bus, how important was the availability of a reduced cost weekly pass for people who take the bus to the Franconia/Springfield Metro?



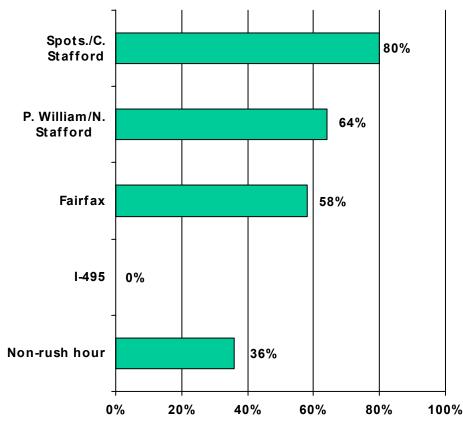
Based to those who switched to bus. Small base size; interpret with caution.

Importance of Reduced Cost Pass for Bus to Franconia/Springfield Metro for Taking Bus

- By "Corridor" -

This reduced cost pass was most important for Spotsylvania / Central Stafford commuters (80%) who take the bus. It was also important for Prince William and Northern Stafford commuters (64%), as well as Fairfax County bus commuters (58%).

Data from Q8: In order for you to decide to take the bus, how important was the availability of a reduced cost weekly pass for people who take the bus to the Franconia/Springfield Metro?

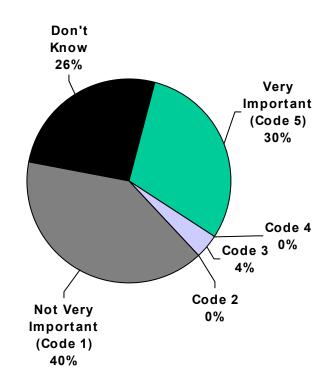


Top-2-box score. Based on those who switched to bus. Small base size; interpret with caution.

Importance of New OmniRide Express Bus for Taking Bus

The new OmniRide Express Bus is very important to nearly 1 out of 3 commuters (30%) who take the bus. In contrast, 40% indicated that this new bus is not important in their decision to take the bus.

Data from Q8: In order for you to decide to take the bus, how important was the new OmniRide Express Bus, also known as the Mixing Bowl Express?

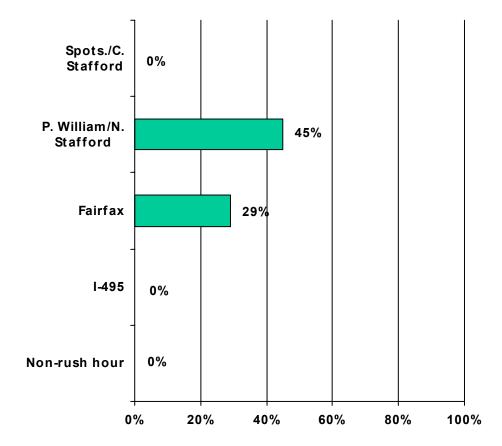


Based to those who switched to bus. Small base size; interpret with caution.

Importance of New OmniRide Express Bus for Taking Bus

- By "Corridor" -

The new OmniRide express bus has been most important for Prince William / Northern Stafford commuters (45%).



Data from Q8: In order for you to decide to take the bus, how important was the new OmniRide Express Bus, also known as the Mixing Bowl Express?

Top-2-box score. Based to those who switched to bus. Small base size; interpret with caution.

Importance of Factors for Commute Mode Decisions

- Total Sample 2002 -

Most importantly, commute decisions are influenced by:

Dependability (90%)

Convenience (88%)

Safety (85%)

Availability (84%)

The time it takes (83%)

There is a second tier of factors that influence commuter choices. These include:

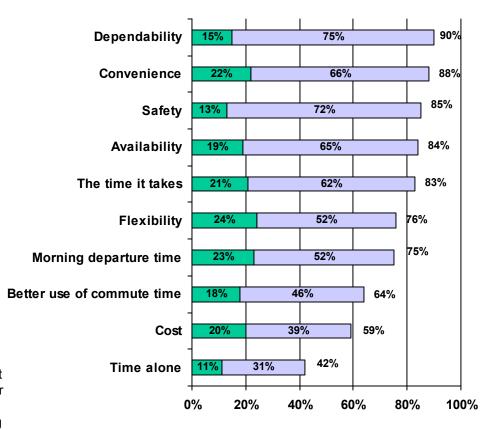
Flexibility (76%)

Morning departure time (75%)

Better use of commute time (64%)

Of slightly lesser stated importance are cost (59%) and time alone (42%).

Data from Q25: Now, I'd like to know how important different factors are to you in choosing how you commute on a regular basis. Use a scale of "1" to "5" where "1" means it is "not at all important" and "5" means it is "very important" in choosing your mode of transportation.



Importance of Factors for Commute Mode Decisions

- By "Corridor" -

For those factors that are most important in commute mode decisions, the pattern of influence does not vary by region, route or time. That is, the same factors are important regardless of whether the commuter lives in Spotsylvania/Central Stafford, Prince William/Northern Stafford or Fairfax County, whether commuting on I-95 or I-495, or in rush hour or not in rush hour. As factors decrease in importance, some differences occur across corridors and schedules. For example, morning departure time and better use of commute time are slightly less important to I-495 rush-hour commuters. In contrast, better use of commute time is somewhat more important to non-rush-hour commuters.

Data from Q25: Now, I'd like to know how important different factors are to you in choosing how you commute on a regular basis. Use a scale of "1" to "5" where "1" means it is "not at all important" and "5" means it is "very important" in choosing your mode of transportation.

	Spots/ C. Staff.	P. Will/ N. Staff.	Fair- fax	<u>l-495</u>	Non- Rush
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Dependability	94	92	90	88	91
Convenience	87	90	91	85	87
Safety	86	89	85	83	84
Availability	87	89	83	81	82
The Time it Takes	81	89	85	79	79
Flexibility	76	78	75	75	75
Morning Departure Time	77	79	74	70	72
Better Use of Commute Time	67	74	66	57	91
Cost	64	70	54	51	56
Time Alone	46	44	42	41	39

Importance of Factors for Commute Mode Decisions

- Comparison of 2002 and 1998 -

The overall pattern of importance of factors influencing commute mode decisions has not changed since 1998.

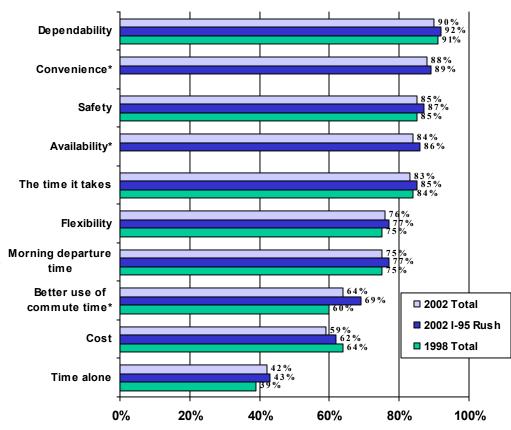
A few differences between 1998 and 2002 require comment.

It appears that "better use of commute time" is becoming more important in commute mode decisions. However, there was a wording change in this year's survey.* Thus, the results from 1998 and 2002 are not entirely comparable. The difference in scores may be a function of the wording change rather than a change in the importance of use of commute time.

Cost may be decreasing in importance (64% in 1998 and 62% in 2002). However, the more important comparison may be between the entire sample of 2002 (including I-495 commuters and non-rush hour commuters) and I-95 rush hour commuters in 2002 and 1998. It may be that cost is simply less important to non-rush hour and I-495 commuters than to the I-95 rush hour commuters.

"Time alone" may be becoming more important to commuters. The importance of this attribute increased from 39% in 1998 to 43% today (among the comparable sample).

^{*} In 1998, the attribute was stated as "Making productive use of your time during the commute." In 2002, it was "Better use of commute time."



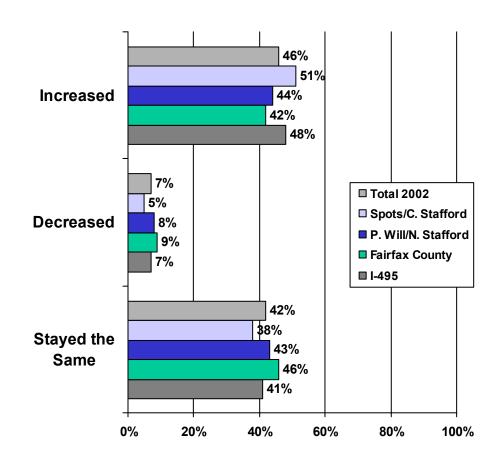
Top-2-box score. *Not asked in 1998. **Wording change in 2002.

Perception of Impact on Commute Time

About one-half (46%) of the Springfield Interchange commuters believe that their commute time has increased as a result of the construction. Commuters coming from Spotsylvania and Central Stafford (51%) are most likely to believe that their commute time has increased. This may reflect, at least in part, the actual length of the commute. It is simply further from Spotsylvania and Central Stafford than it is from Prince William/Northern Stafford and Fairfax County. Commuters from Fairfax County are least likely to say that their commute has increased. Forty-two percent (42%) of the commuters coming from Fairfax County believe that their commute has increased. Forty-eight percent (48%) of I-495 rush-hour commuters report that their commute is longer.

Four out of ten (42%) of respondents believe that the construction at the Springfield Interchange has had no impact on their commute time. Fairfax County residents (46%) are most likely to think the construction has had no impact on their commute time. Commuters from Spotsylvania and Central Stafford are least likely to think that the construction has had no impact on their commute time (38%).

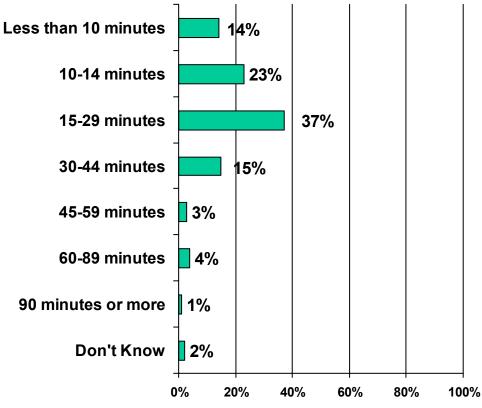
Data from Q26: As you may know, the Springfield Interchange at I-95, I-395, and the Beltway is being totally reconstructed. How, if at all, has this construction impacted your commute time? (READ LIST.)



Perception of Increased Commute Time

Of those who believe that their commute time has increased since the construction began, 83% – more than 8 out of 10 – believe that the time has increased more than 10 minutes. The most frequent response is 15-29 minutes. Thirty-seven percent (37%) believe their commute time has increased by 15-29 minutes. A fourth – 23% – believe their commute has increased 10-14 minutes; and, 15% believe that their commute time has increased 30-44 minutes.

In contrast, only 14% believe that their commute time has increased less than 10 minutes.



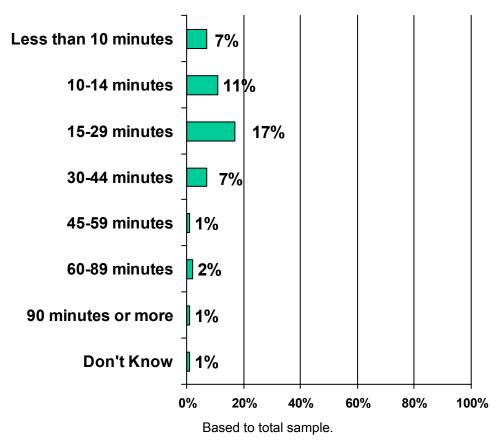
Based to those who said their commute time has increased.

Data from Q27: How much would you say the construction has increased your commute time? (READ LIST.)

Perception of Increased Commute Time - Total Sample 2002 -

When these numbers are based back to the total sample, it is possible to estimate the increases in commute time for all commuters. From this perspective, only 17% have experienced an increase of 15-29 minutes. Only 7% believe their commute has increased 30-44 minutes. Only 4% of commuters have experienced an increased commute time of 45 minutes or more.

Data from Q27: How much would you say the construction has increased your commute time? (READ LIST.)



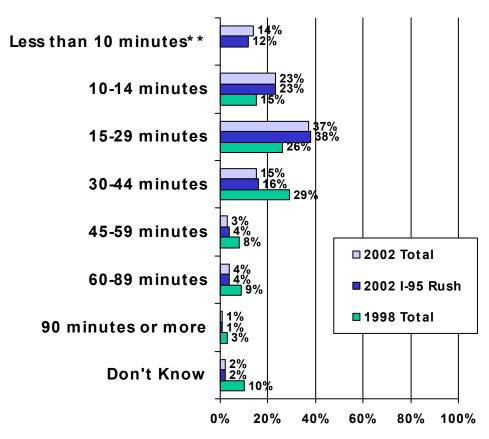
Perception of Increased Commute Time - Comparison of 2002 and 1998* -

The construction has not impacted commute times as seriously as commuters anticipated.

In the 1998 research, respondents were asked how they thought the Springfield Interchange construction would impact their commute.

In 1998, prior to start of the construction, 49% of the commuters said that they believed their commute would increase by at least 30 minutes. In 2002, 23% of the commuters who believed their commute had increased said that it was at least 30 minutes longer. Twenty-five percent (25%) of today's I-95 commuters believe their commute has increased by at least 30 minutes.

In 1998, only 15% of commuters believed that their commute time would increase by less than 15 minutes. Today, 37% of commuters believe that their commute time has increased by less than 15 minutes. Among the I-95 rush-hour commuters, 35% believe their commute has increased by less than 15 minutes.



*Asked as actual impact in 2002 and anticipated increase in 1998. 39

**Not asked in 1998.

Perception of Decreased Commute Time*

Most commonly, commuters who believe that their commute time has decreased believe it has decreased less than 10 minutes. Thirty-nine percent (39%) of this group responded that their time decrease was less than 10 minutes.

A fourth (25%) said their commute has decreased by 10-14 minutes.

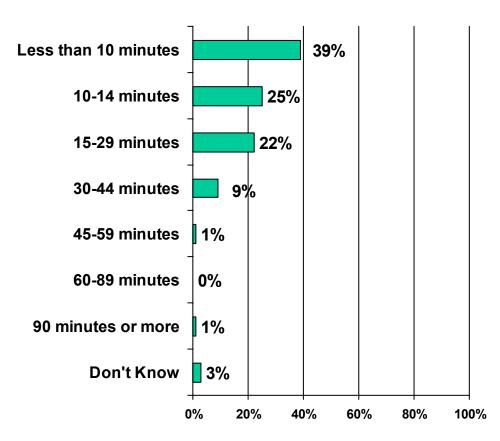
Twenty-two percent (22%) believed that their commute has decreased by 15-29 minutes.

Nine percent (9%) said their commute has decreased by 30-44 minutes.

Very few (2%) believed that their commute has decreased 45 minutes or more since start of the construction.

A decrease in commute time may be the result of "switching" to another transportation mode. Of those who have experienced a decrease in commute time, 19% report having switched transportation modes as compared to 14% overall who have switched.

Data from Q27: How much would you say the construction has decreased your commute time? (READ LIST.)

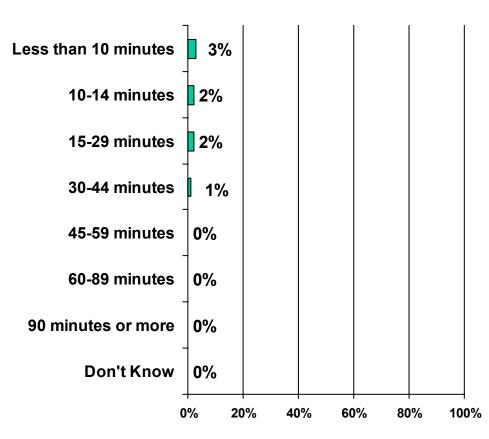


Based to those who said their commute time has decreased. *Decrease not asked in 1998.

Perception of Decreased Commute Time - Total Sample 2002* -

Among all Springfield Interchange commuters, 3% have experienced a decrease in the commute time of up to10 minutes. Another 2% report a decrease of 10-14 minutes. Two percent (2%) also report a decrease of 15-29 minutes. One percent (1%) have experienced a decrease in the commute time of 30-44 minutes.

Data from Q27: How much would you say the construction has decreased your commute time? (READ LIST.)



Based to total sample. *Decrease not asked in 1998. 41

Behavioral Responses to Construction - Total Sample 2002 -

The most common response to the construction is to leave home earlier. Nearly one-half of the commuters (47%) said that they now leave home earlier than before the start of the construction.

A sizeable proportion (37%) said that they have changed their route.

Fifteen percent (15%) leave home later.

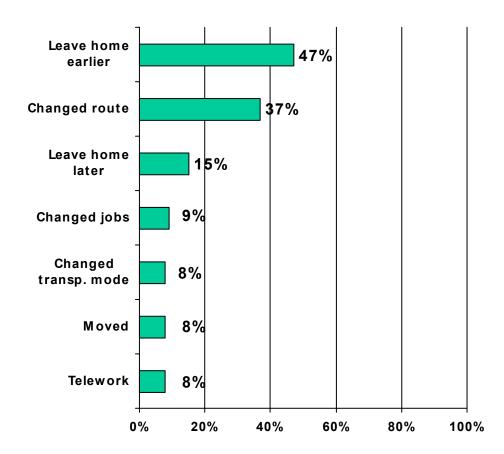
Similarly, 9% said that they have changed jobs.

Nearly 1 out of 10 (8%) said that they have changed to another mode of transportation.

Eight percent (8%) have moved.

The Springfield Interchange construction has increased teleworking. Eight percent (8%) now telework.

Data from Q28: In response to the construction at the Springfield Interchange, how, if at all, have you changed the way in which you travel through the area? Have you/Do you _____? (READ LIST.)

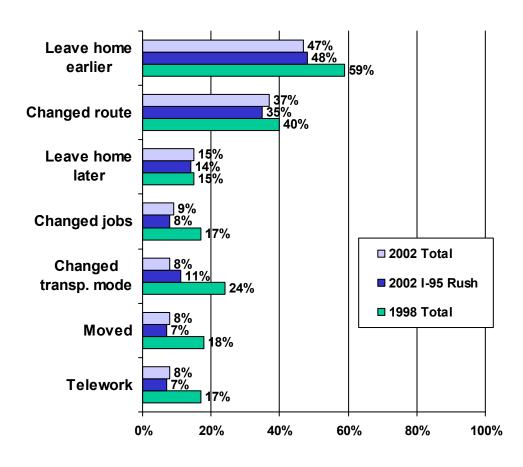


Behavioral Responses to Construction - Comparison of 2002 and 1998* -

Commuters have not responded to the construction in the ways they anticipated they would prior to the start of the construction.

Commuters are less likely to leave home earlier, change routes, change jobs, change transportation modes, move or telework than they thought they would.

It can be hypothesized that since commute time has not increased to the extent that commuters thought it would, they see less need to change their behavior.



Importance of Certain Factors to Those Who Have Changed Behavior - Total Sample 2002 -

Those commuters who have changed their behavior due to the construction are most concerned about:

Dependability (71%)

Flexibility (71%)

Saving time (68%)

Safety (68%)

Some indicated that they have been impacted by specific programs:

New Park-and-Ride lots (31%)

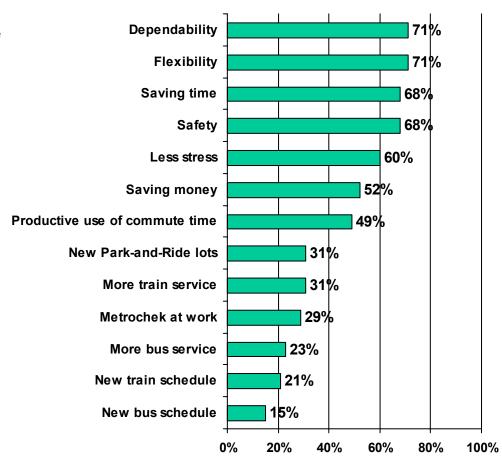
More train service (31%)

Metrochek at work (29%)

More bus service (23%)

New train schedule (21%)

New bus schedule (15%)



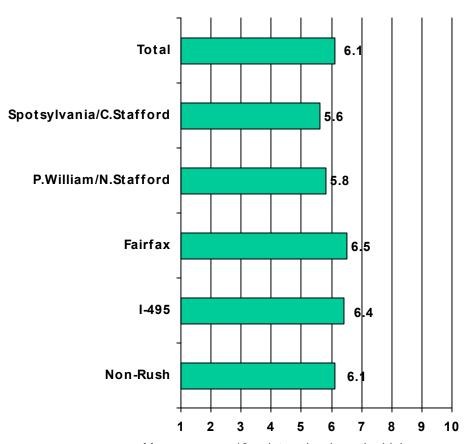
Top-2-box score on a 5-point scale.

Project Perceptions

Ease Traffic Congestion

Traffic congestion in Northern Virginia may be such an extreme experience for commuters that it is difficult for them to imagine it being lessened. Consequently, they are not entirely convinced that changes being made at the Springfield Interchange will actually ease traffic congestion in the area. On a scale of 1-10 where a higher score is more favorable, the mean rating for the Springfield Interchange construction project is 6.1 in terms of its potential for easing traffic congestion. Rush-hour commuters who live in Fairfax County are more likely to believe the project will ease congestion (6.5) than are those who reside in Spotsylvania / Central Stafford (5.6) and Prince William / Northern Stafford (5.8). These differences may be a function of the distances traveled by commuters farther from Washington, DC. Commuters on I-495 share the views of Fairfax County in their expectations of the construction to ease traffic congestion (6.4). With a mean score of 6.1, the expectations of non-rush hour commuters fall midway between the expectations of Spotsylvania / Central Stafford and Fairfax County rush-hour commuters.

Data from Q41: Think about when the construction is completed. To what extent do you think it will help to ease traffic congestion in the area? Use a scale of "1" to "10," where a "10" means it will ease traffic congestion a great deal and a "1" means it will not ease traffic congestion at all.

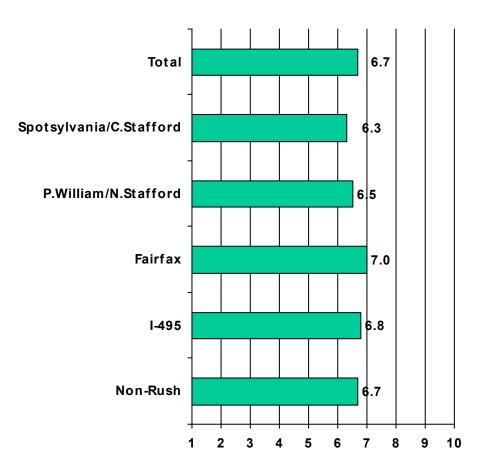


Mean score on 10-point scale where the higher the score, the more it will ease congestion.

Increase Safety

Commuters are more likely to believe that the Springfield construction will increase traffic safety than to believe that it will ease traffic congestion. On a scale of 1-10, expectations that the construction project will eventually increase traffic safety receives a mean score of 6.7. Just as is true for "easing traffic congestion," Fairfax County I-95 rush-hour commuters have the highest expectations (7.0 mean) for increased safety. In contrast, the mean score among I-95 commuters from Spotsylvania / Central Stafford is 6.3. It is 6.5 among I-95 rush-hour commuters from Prince William County / Northern Stafford. I-495 commuters rate the construction project a 6.8 for increasing safety, compared to 6.7 for non-rush hour commuters.

Data from Q42: Continuing to think about when the construction project is completed, to what extent do you think the road changes made will make it safer to drive through the area? Again use a scale from "1" to "10."

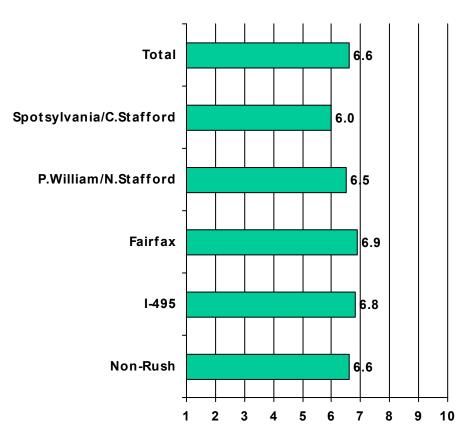


Mean score on 10-point scale where the higher the score, the more it will increase safety.

47

Easier to Travel Through Area

Commuters are moderately convinced that when completed the construction project will make it easier to travel through the area. On the specific attribute "easier to travel through the area" the construction project receives a mean score of 6.6. As on other attributes, the most favorable rating is posted for Fairfax County (6.9). The least favorable rating comes from Spotsylvania / Central Stafford (6.0) and Prince William County / Northern Stafford (6.5). The ratings of I-495 commuters (6.8) and non-rush commuters (6.6) fall closer to the rating of Fairfax County.



Data from Q43: To what extent do you think it will make it easier to travel through the area? Again use a scale from "1" to "10."

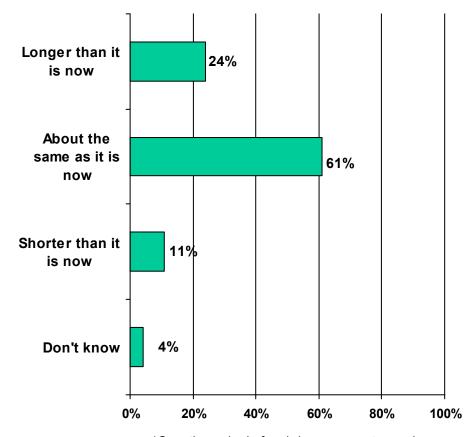
Mean score on 10-point scale where the higher the score, the easier it makes it to travel through area.

Future Response to Construction

Anticipated General Impact of Springfield Interchange Construction on Rush-Hour Commute*

In thinking about their commute in the future, some commuters anticipate that the construction will continue to impact the length of their commute. Twenty-four percent (24%) of rush hour commuters believe that their commute will be longer than it is now. Eleven percent (11%) believe that their commute time will decrease. Sixty-one percent (61%) believe that continued construction at the Springfield Interchange will not impact the time it takes to get to their destination.

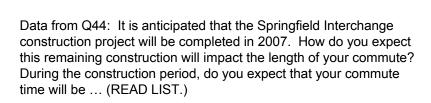
Data from Q44: It is anticipated that the Springfield Interchange construction project will be completed in 2007. How do you expect this remaining construction will impact the length of your commute? During the construction period, do you expect that your commute time will be ... (READ LIST.)

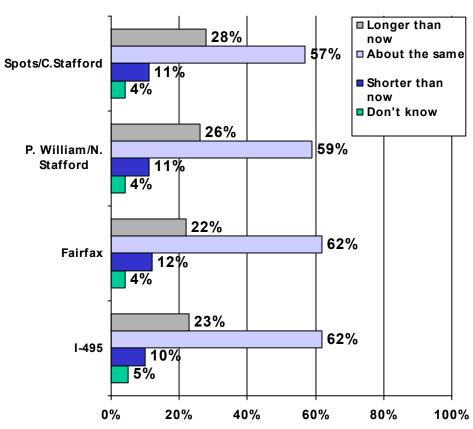


*Question asked of rush-hour commuters only.

Anticipated General Impact of Springfield Interchange Construction on Commute - By "Corridor" -

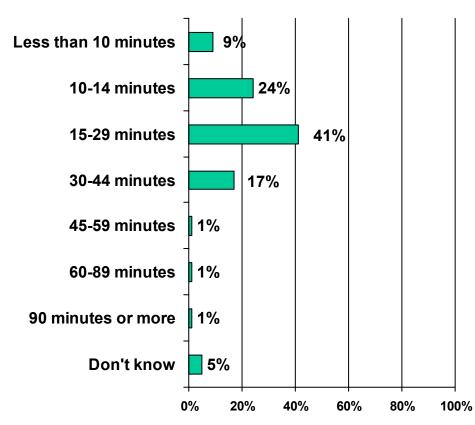
Commuters coming from Spotsylvania / Central Stafford (28%) and Prince William / Northern Stafford (26%) are most likely to believe that the time required for their commute will increase with the continued construction at the Springfield Interchange.





Anticipated Increased Commute Time

Those commuters who believe their commute time will be increased by the continuing construction at the Springfield Interchange anticipate an increase – for the most part – of 15-29 minutes. Fortyone percent (41%) mentioned this time range for an increased commute time. Another 24% mentioned an increase of 10-14 minutes. Seventeen percent (17%) expect an increase of 30-44 minutes. And, 9% expect the increase to be less than 10 minutes.



Data from Q45: How much longer do you think your commute will be? (READ LIST.)

Based to those who expect commute time to be longer.

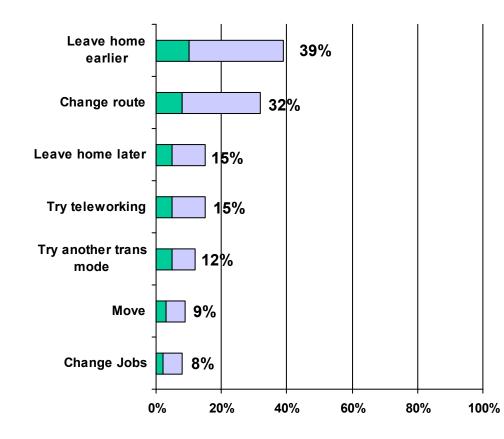
Likelihood of Trying Different Commute Options in Future - Total Sample 2002 -

Just as they are already doing in response to the construction, commuters are most likely to believe that they will leave home earlier (39%) in response to future construction.

Thirty-two percent (32%) believe that they will change their route in some way in the future to adjust to continuing construction at the Springfield Interchange.

Fifteen percent (15%) said they will leave home earlier; and, 15% said they will try teleworking.

Data from Q46: Please tell me how likely you would be to try these options. Use a scale of "1" to "5," where "1" means you are "not at all likely" and "5" means you are "very likely." How likely are you at some time during this construction period to ? (READ LIST.)

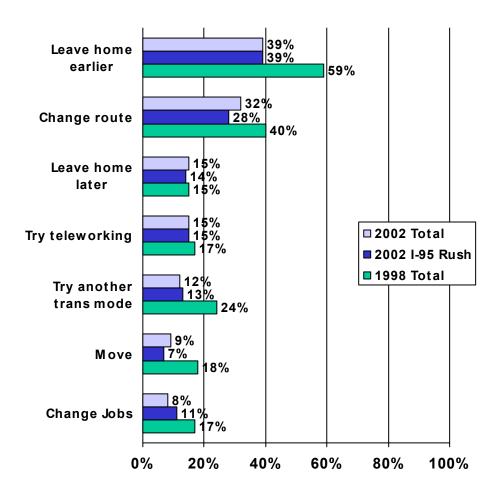


Likelihood of Trying Different Commute Options in Future

- Comparison of 2002 and 1998 -

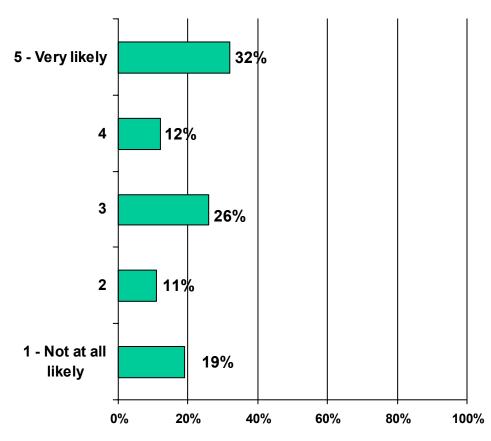
Commuters are less likely to report that they will try leaving home earlier, changing routes, trying another transportation mode, moving or changing jobs than in 1998. They are about as likely today as in 1998 to say that they will try leaving home later and teleworking.

Data from Q46: Please tell me how likely you would be to try these options. Use a scale of "1" to "5," where "1" means you are "not at all likely" and "5" means you are "very likely." How likely are you at some time during this construction period to ? (READ LIST.)



Likelihood of Employer to Permit Teleworking

Forty-four percent (44%) of those who will try teleworking in the future (Codes 5 and 4) work for employers who will be likely to permit teleworking. Thirty percent (30%) do not currently work for employers who are likely to allow them to telework (Codes 1 and 2).



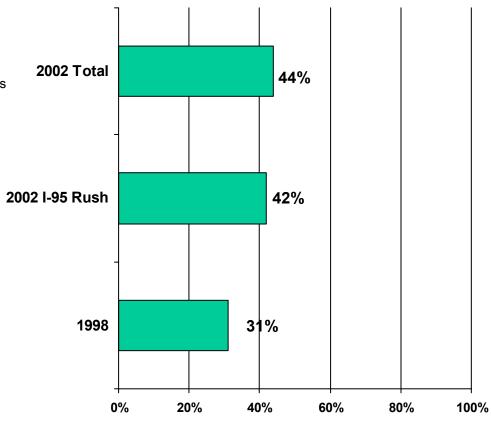
Data from Q47: How likely would your employer be to permit telecommuting? Please use the same scale of "1" to "5."

Based to those likely to try teleworking.

Likelihood of Employer to Permit Telework

- Comparison of 2002 and 1998 -

Employer support for teleworking has grown since 1998. In 1998, 31% of those interested in teleworking worked for employers who were likely to permit teleworking. Among I-95 rush-hour commuters, that proportion increased to 42% in 2002, and it is 44% among the total sample. An alternate interpretation may be that those employees who want to telework have changed jobs in order to work for an employer who allows teleworking.



Top-2-box scores.

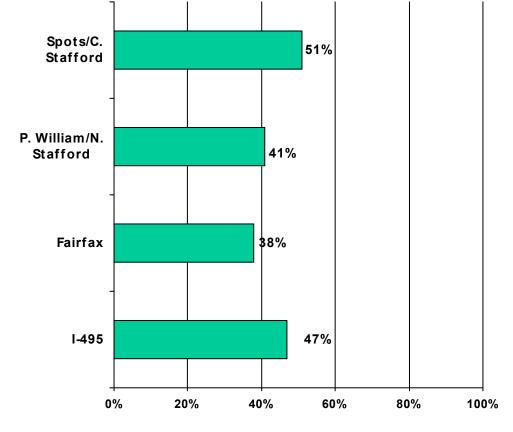
56

Likelihood of Employer to Permit Teleworking

- By "Corridor" -

Commuters coming from Spotsylvania/Central Stafford (51%) are most likely to work for employers who allow teleworking. Commuters from Fairfax County (38%) are least likely to work for employers who allow teleworking.

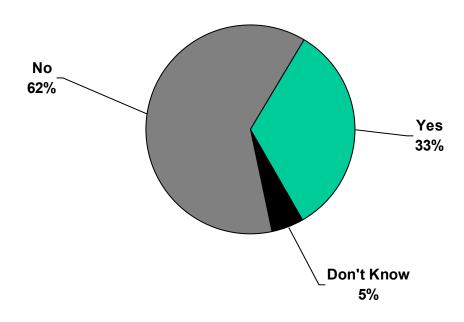
There may be some selectivity influencing this pattern. Perhaps those commuters who live farther from the Interchange (Spotsylvania/Central Stafford) have more lengthy commutes overall, so they have selected to work for employers who allow teleworking. They are already anticipating the possibility of teleworking. It may be, also, that employers with employees coming from farther distances recognize a hardship for these employees and are more willing to permit teleworking.



Data from Q47: How likely would your employer be to permit telecommuting? Please use the same scale of "1" to "5."

Employer Currently Allows Teleworking*

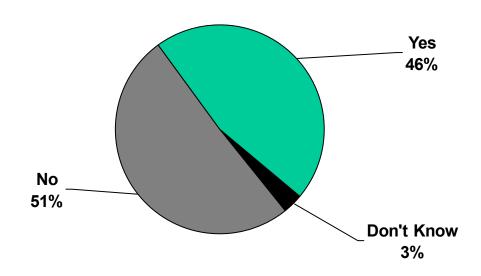
A third (33%) of the rush-hour commuters who are not likely to telework work for employers who already permit teleworking. Thus, if they were convinced of the benefits of teleworking, they could select this work and lifestyle option.



Data from Q48: Does your employer currently allow employees to telecommute or telework?

VRE or Metrorail Is Reasonably Available to Destination

VRE or Metrorail is reasonably available to nearly one-half (46%) of the commuters.

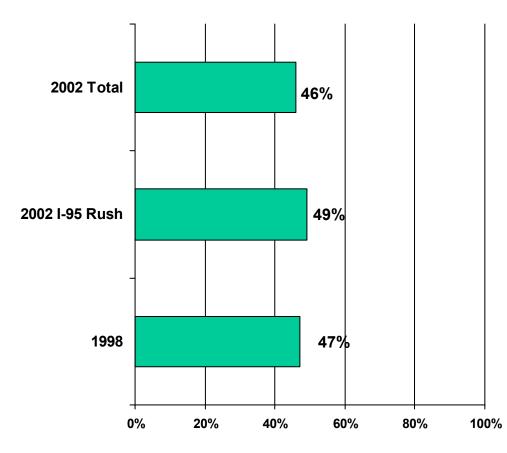


Data from Q49: Assuming you could change your current pattern, is VRE or Metrorail reasonably available to your destination?

VRE or Metrorail Is Reasonably Available to Destination

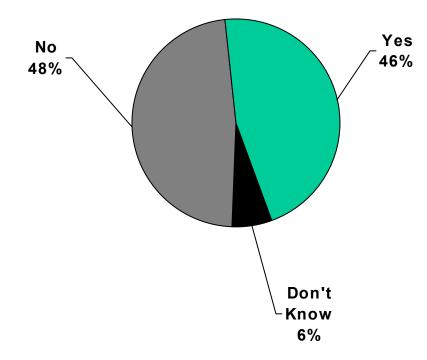
- Comparison of 2002 and 1998 -

Availability of Metrorail and VRE is at about the same level as it was in 1998.



Bus Service Is Reasonably Available to Destination

Bus service is reasonably available to the destinations of 46% of the commuters traveling through the area of the Springfield Interchange.

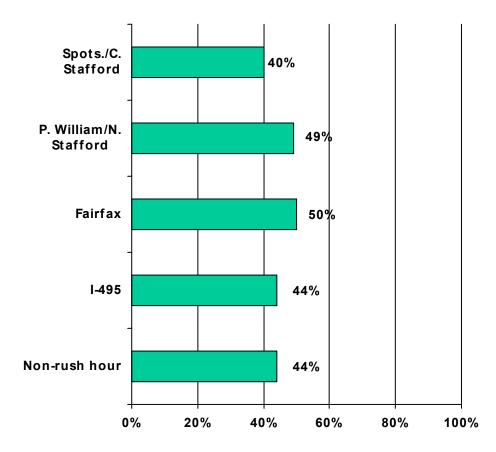


Data from Q50: Is bus service reasonably available to your destination?

Bus Service Is Reasonably Available to Destination

- By "Corridor" -

Spotsylvania / Central Stafford commuters are least likely (40%) to believe that bus service is reasonably available to their destination. In contrast, one-half (50%) of commuters in Fairfax County say that bus service is reasonably available to their destination.



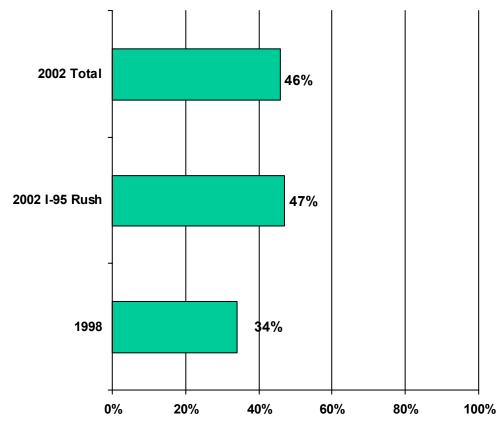
Data from Q50: Is bus service reasonably available to your destination?

Bus Service Is Reasonably Available to Destination

- Comparison of 2002 and 1998* -

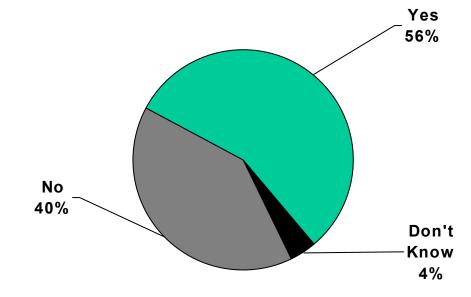
Perceived availability of bus service has increased since 1998. In 1998, 34% said that bus service was reasonably available to their destination. Among the comparable group in 2002, 47% said that bus service was reasonably available.

* Described as "express bus service" in 1998 survey.



Park-and-Ride Lots Are Reasonably Available for Commute

Over one-half (56%) of the commuters reported that Parkand-Ride lots are available for their commute.

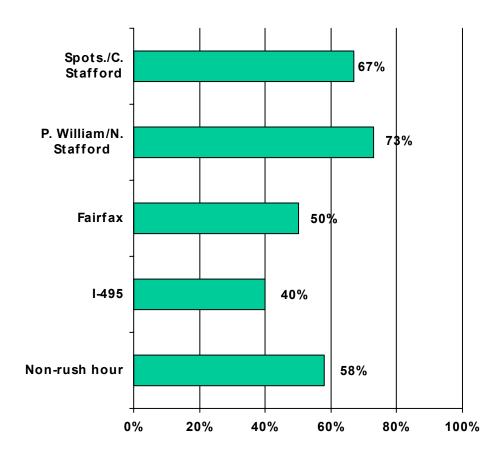


Data from Q51: Are commuter Park-and-Ride lots reasonably available for your commute?

Park-and-Ride Lots Are Reasonably Available for Commute

- By "Corridor" -

Commuters from Spotsylvania / Central Stafford (67%) and Prince William / Northern Stafford (73%) are most likely to have Park-and-Ride lots that are reasonably available for their commute. In contrast, only 50% of Fairfax County I-95 commuters have Park-and-Ride lots that are reasonably available.

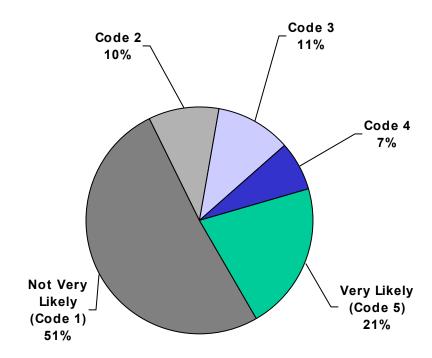


Data from Q51: Are commuter Park-and-Ride lots reasonably available for your commute?

Likelihood of Using Park-and-Ride Lots, If Available

About 28% of the commuters would be likely to use Park-and-Ride lots, if they were available. Of these, 21% would be <u>very</u> likely to use the lots. In contrast, over half (51%) would be not very likely to use the lots for their commute.

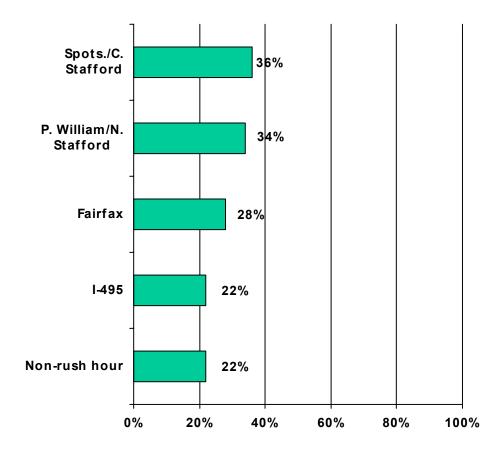
Data from Q52: If commuter Park-and-Ride lots were available, how likely would you be to use them? Please use a scale of "1" to "5," where "1" means "you would not be very likely to use them" and "5" means you "would be very likely to use them."



Likelihood of Using Park-and-Ride Lots, If Available - By "Corridor" -

One-third of Spotsylvania / Central Stafford (36%) and Prince William / Northern Stafford (34%) commuters would use Park-and-Ride lots if available. In contrast, 28% of Fairfax County commuters would use the lots. Less than one-fourth (22%) of commuters on I-495 or at non-rush hour would use Park-and-Ride lots.

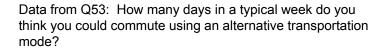
Data from Q52: If commuter Park-and-Ride lots were available, how likely would you be to use them? Please use a scale of "1" to "5," where "1" means "you would not be very likely to use them" and "5" means you "would be very likely to use them."

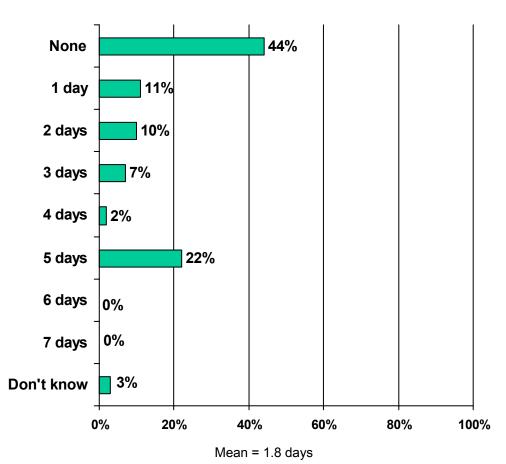


Number of Days Could Use Alternative Transportation

On average, commuters would be able to use alternative transportation for 1.8 days each week.

More than 4 out of every 10 (44%) could <u>not</u> use an alternative transportation means at all. Eleven percent (11%) could use an alternative means one day a week; 10% could travel by an alternative means two days a week. Seven percent (7%) could use an alternative means three days a week. Twenty-two percent (22%) could use an alternative means of transportation five days a week.



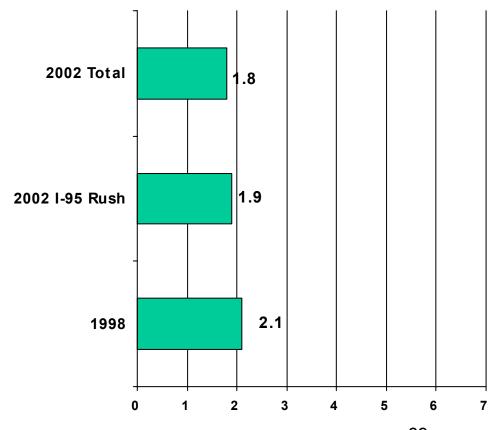


Mean Number of Days Could Use Alternative Transportation

- Comparison of 2002 and 1998* -

In comparison to 1998, the average number of days commuters could travel by alternative transportation has decreased slightly. In 1998, the average number of days was 2.1. Among the comparable sample today, the average number of days is 1.9.

* In the 1998 survey, this question was asked for use of alternative transportation combined with telework. The 2002 survey asked about transportation and telework in separate questions. The 1.9 average today represents the average of transportation, excluding teleworking.



Number of Days Could Telework

- Total Sample 2002 -

None

1 day

2 days

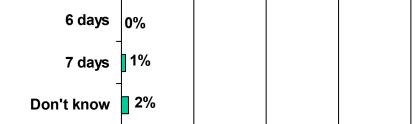
3 days

4 days

5 days

0%

The mean number of days commuters could telework is 1.0 days per week. Thirteen percent (13%) could telework one day. Ten percent (10%) could telework 2 days, while 8% could telework five days each week. More than six out of ten (61%) said they could telework no days at all.



20%

40%

60%

Mean = 1.0 days

13%

10%

5%

8%

Data from Q54: How many days in a typical week do you think you could telecommute?

100%

80%

61%

Likelihood of Trying Commute Options

Most frequently, commuters are likely to carpool with one other person (20%).

Eighteen percent (18%) are likely to use Metrorail for their commute.

Sixteen percent (16%) are likely to carpool with two or more others.

Thirteen percent (13%) are likely to try slugging (informal carpooling).

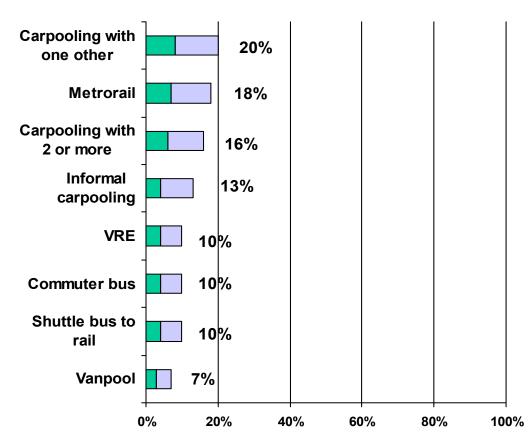
Ten percent (10%) are likely to try:

VRE

Commuter bus

Shuttle bus to rail

Data from Q55: Please tell me how likely you would be to try each of the following options for at least part of your commute during this period of construction.



Top-2-box score. Each mode based to those who do not use that mode currently. 71

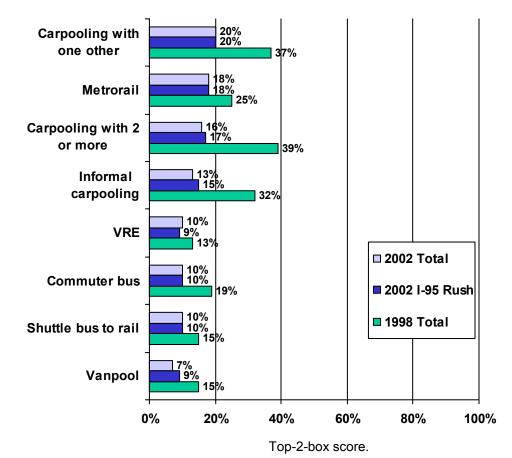
Likelihood of Trying Commute Options - Comparison of 2002 and 1998 -

The willingness of commuters to try alternative modes of transportation appears to have decreased slightly since 1998. For example:

In 1998, 37% were likely to try carpooling with one other person. Today, the proportion is 20% among the comparable sample.

In 1998, 39% were willing to try carpooling with two or more others. Today, the proportion stands at 17%. In 1998, 32% were willing to try slugging. Today, only 15% are willing to slug. Today, 18% are likely to try Metrorail, compared to 25% in 1998.

These findings may mean that commuters are less open to alternative transportation today than they were in 1998.



Reasons Not Likely to Try Commute Options

Those not likely to try carpooling most typically cite their work schedule and that there is no one going their way.

Interestingly, some will not try carpooling with only one other person because it does not allow them to use the HOV lanes.

There is some concern about safety and riding with strangers that limits the appeal of slugging (informal carpooling).

Work schedule HOV arrangements Not going my way Need / like own car Inconvenient	Carpool with 1 other % 21 18 17 8 5	Carpool with 2 or more	Informal carpool % 24 - 10 6 8
Like privacy	4	6	6 5
Don't like riding with strangers	3	2	13
Not safe	1	1	9
Don't want to	2	4	7
Takes too long	1	1	2
Too expensive	-	1	-
Location of job or home	1	3	2

Data from Q57: Why are you not likely to _____?

Reasons Not Likely to Try Commute Options

The most frequent reasons for not riding in a vanpool are work schedule and inconvenience.

Those who are not likely to use the VRE blame inconvenience, location (e.g., "not going my way") and their work schedule.

Several reasons also seem to limit use of Metrorail, including work schedule, "not going my way," and not liking to ride with strangers.

	<u>Vanpool</u>	<u>VRE</u>	<u>Metrorail</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Work schedule	26	15	15
HOV arrangements	_	-	-
Not going my way	9	18	14
Need / like own car	8	13	8
Inconvenient	14	27	8
Like privacy	5	2	5
Don't like riding with strangers	2	<1	13
Not safe	2	1	9
Don't want to	8	4	9
Takes too long	2	6	5
Too expensive	2	9	5
Location of job or home	2	17	20

Data from Q57: Why are you not likely to _____?

Reasons Not Likely to Try Commute Options

Commuters do not take the commuter bus because it is not convenient, it does not accommodate their work schedule, it does not go their way and because it takes too long. They list the same reasons for not taking the shuttle bus to rail.

	Commuter bus	Shuttle bus to rail
	<u>%</u> 19	<u>%</u>
Work schedule	19	14
HOV arrangements	-	<1
Not going my way	12	10
Need / like own car	7	5
Inconvenient	20	31
Like privacy	3	2
Don't like riding with strangers	<1	<1
Not safe	<1	1
Don't want to	7	5
Takes too long	13	12
Too expensive	4	3
Location of job or home	7	7

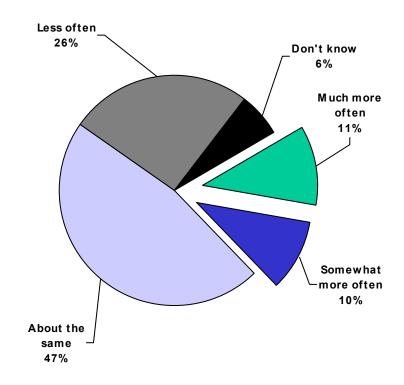
Data from Q57: Why are you not likely to _____?

Impact of More Park-and-Ride Lots on Use of Alternate Transportation

More than one-fifth (21%) of the commuters said that they would be more likely to use alternative transportation if more Park-and-Ride lots were available. In fact, eleven percent (11%) – more than 1 out of every 10 commuters – would be much more likely to use alternative transportation if there were more Park-and-Ride lots.

The 26% who would use alternate transportation less often appears to be an anomaly. Some respondents who have given this answer already use alternate transportation. When these respondents are excluded, those responding "less often" tend to be those who drive alone or carpool with one other. These people may have had some negative experience with Park-and-Ride lots in the past (crowding, for example) and plan to avoid them. Alternatively, they may believe that others will use these options and switch to the HOV lanes. Thus, those who SOV or carpool with one other see no real reason to change under this scenario.

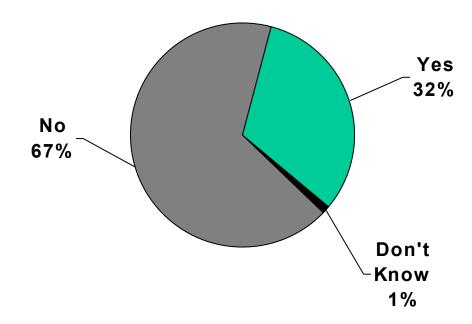
Data from Q58a: If there were more Park-and-Ride lots, what impact would that have on your using alternative forms of transportation, such as carpool, vanpool, VRE, or the bus? Would it make you use an alternate ... (READ LIST.)



Any Transportation Option Currently Not Available

About one-third of the commuters (32%) said that there are transportation options currently not available that they would consider using if they were available.

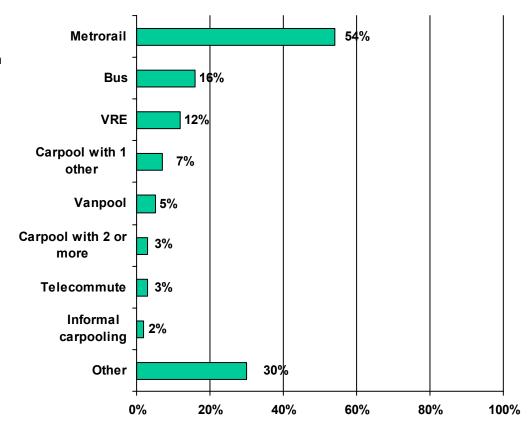
Data from Q58b: Are there currently any transportation options not available to you that you would consider using if they were available?



Specific Transportation Options That Are Not Currently Available

Most frequently, the "missing" transportation option is Metrorail. Over one-half of the commuters (54%) who indicated that a particular transportation option is not currently available to them said they would ride Metrorail if it were available.

Sixteen percent (16%) would take the bus if it were available. Twelve percent (12%) would take VRE if it were available.



Data from Q58c: What transportation option is that?

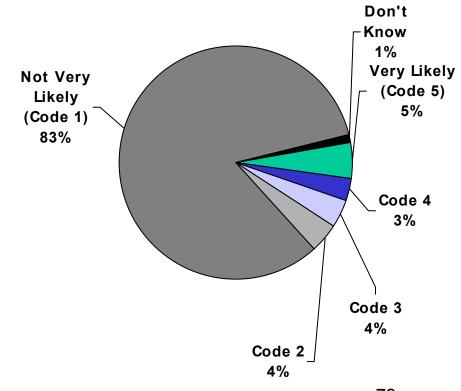
Based to those who said a transportation option is not available.

Likelihood of Using Low-Cost, Rush-Hour Bus Service From Springfield Metro Center to Tysons Transit Center

Only about 8% of commuters are likely to use low-cost, rush-hour bus service from Springfield Metro to Tysons. Five percent (5%) indicated that they would be <u>very</u> likely to use this bus service.

In contrast, 83% of commuters are not very likely to use this low-cost, rush-hour bus service.

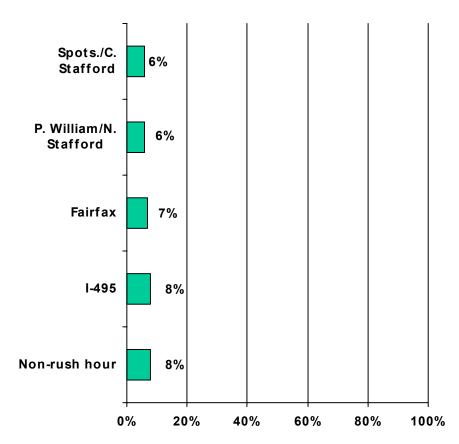
Data from Q58d: Suppose that low-cost, rush hour bus service were available, round-trip, from Franconia-Springfield Metro Station to Tysons Corner. This bus service would go from the Springfield Metro Center to a Tysons Transit Center, where you could transfer to local bus service. How likely would you be to use this low-cost, rush hour bus service from the Franconia Metro Center to Tysons Corner? Please use a scale of "1" to "5," where "1" means you "would not be very likely to use this bus service" and "5" means you would be "very likely to use this bus service."



Likelihood of Using Low-Cost, Rush-Hour Bus Service From Springfield Metro Center to Tysons Transit Center - By "Corridor" -

Likelihood of using this low-cost, rush-hour bus service does not vary across corridor. Interest ranges from 6% to 8% among all groups of commuters.

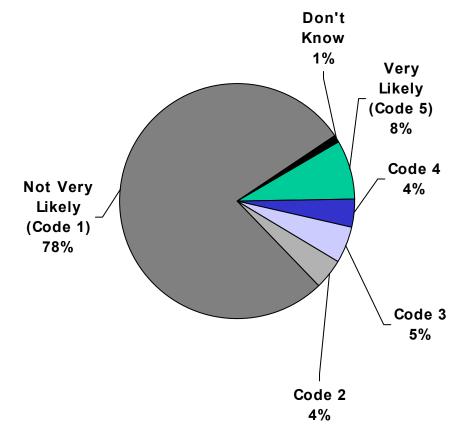
Data from Q58d: Suppose that low-cost, rush hour bus service were available, round-trip, from Franconia-Springfield Metro Station to Tysons Corner. This bus service would go from the Springfield Metro Center to a Tysons Transit Center, where you could transfer to local bus service. How likely would you be to use this low-cost, rush hour bus service from the Franconia Metro Center to Tysons Corner? Please use a scale of "1" to "5," where "1" means you "would not be very likely to use this bus service" and "5" means you would be "very likely to use this bus service."



Likelihood of Using This Low-Cost Bus Service if Required No Transfer

Likely use of the low-cost, rush-hour bus service would increase only slightly if it required no transfer – increasing from 8% to 12%.

Data from Q58e: Suppose that this bus from Franconia-Springfield Metro Station to Tysons Corner circulated around businesses within Tysons Corner so that you would not have to transfer to local bus service. How likely would you be to use this bus service if you did not have to transfer to another bus to get to your destination?



Woodrow Wilson Bridge

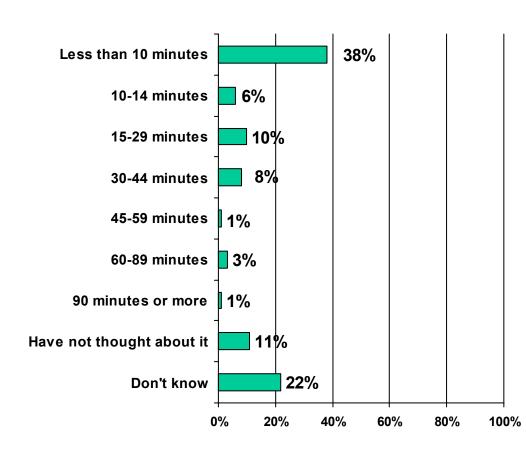
Anticipated Delay of Woodrow Wilson Bridge Construction

Currently, commuters are most likely to anticipate a commute delay of less than 10 minutes as a result of the Woodrow Wilson Bridge construction. More than one-third (38%) responded "less than 10 minutes" when asked about the delay.

Six percent (6%) anticipate a delay of 10-14 minutes. Ten percent (10%) expect the delay to be 15-29 minutes, and 8% expect a delay of 30-44 minutes.

So far, 11% have not yet thought about the delay the construction might cause.

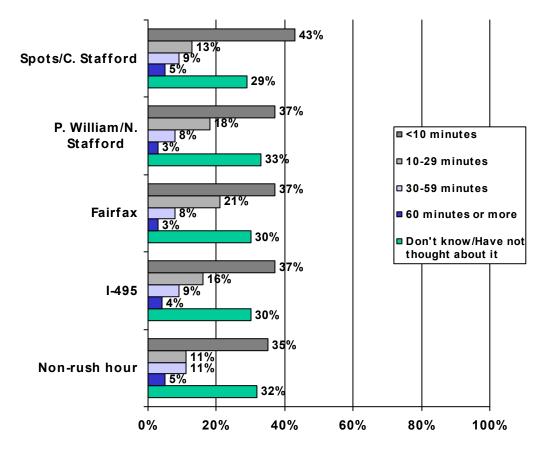
Data from Q60: It is anticipated that it will take several years to complete the construction project on the Woodrow Wilson Bridge. How much of an additional delay would you guess this will cause for your (COMMUTE/TRAVEL)? (READ LIST.)



Anticipated Delay of Woodrow Wilson Bridge Construction

- By Corridor -

Woodrow Wilson Bridge commuters seem to be represented in all groups of commuters studied in this research -- I-95 rush hour, I-495 rush hour and non-rush hour -- in that about the same proportions in all groups expect the same level of delay from the construction. Additionally, around one-third in each group have not thought about the construction delay or do not know what the delay will be.



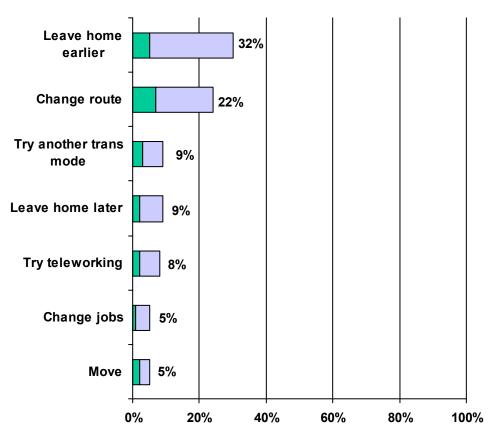
Data from Q60: It is anticipated that it will take several years to complete the construction project on the Woodrow Wilson Bridge. How much of an additional delay would you guess this will cause for your (COMMUTE/TRAVEL)? (READ LIST.)

Likelihood of Trying Transportation Options During Woodrow Wilson Bridge Construction

Just as is true for the Springfield Interchange, commuters say that they are most likely (32%) to leave home earlier as a result of the construction at the Woodrow Wilson Bridge.

Second most common, commuters are likely to change their route. Nearly one-fourth (22%) gave this response.

Data from Q61: Please tell me how likely you would be to try these options. Use a scale of "1" to "5," where "1" means you are "not at all likely" and "5" means you are "very likely."



Based to those who anticipate at least a 10-minute delay. 85

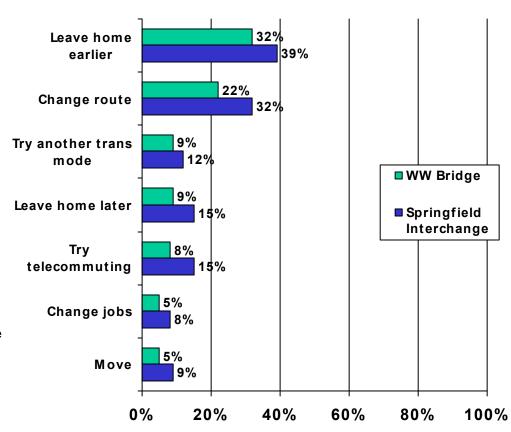
Likelihood of Trying Transportation Options During Woodrow Wilson Bridge Construction

- Compared to Springfield Interchange -

The pattern of anticipated response to the construction at the Woodrow Wilson Bridge is similar to that of the Springfield Interchange -- but is of a lower level.

This lower level of response is fairly constant across corridors -- as indicated by the table on the following page.

Data from Q61: Please tell me how likely you would be to try these options. Use a scale of "1" to "5," where "1" means you are "not at all likely" and "5" means you are "very likely."



Based to those who anticipate at least a 10-minute delay. 86

Likelhood of Trying Transportation Options During Woodrow Wilson Bridge Construction - By "Corridor" -

	Spots/			Non-	
	C.Stafford	N. Stafford	<u>Fairfax</u>	<u> 1-495</u>	Rush
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Leave home earlier	32	35	33	26	36
Change route	20	21	21	23	25
Try another trans. mode	9	10	9	6	10
Leave home later	4	9	10	8	17
Try teleworking	10	9	8	7	7
Change jobs	6	6	4	7	7
Move	5	6	4	3	6

Anticipated response to the construction at the Woodrow Wilson Bridge does not vary dramatically across the corridors. The most striking difference occurs with non-rush hour commuters who are more likely to say that they will leave home later (17%) than are the other groups.

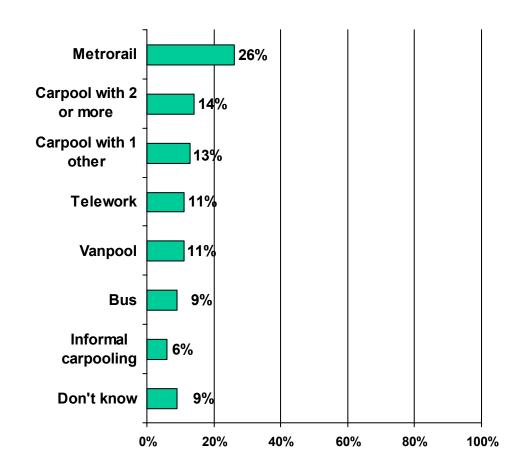
Transportation Mode Most Likely to Try During Woodrow Wilson Bridge Construction

Interestingly, Metrorail is the commute mode most commuters would be likely to try in response to construction at the Woodrow Wilson Bridge. More than one-fourth of the commuters (26%) said that they would try using Metrorail.

Fourteen percent (14%) would try carpooling with two or more others. Thirteen percent (13%) would try carpooling with one other.

Eleven percent (11%) would be willing to try teleworking; and, another 11% would try using a vanpool.

Data from Q62: What type of transportation mode would you be most likely to try? (READ LIST.)

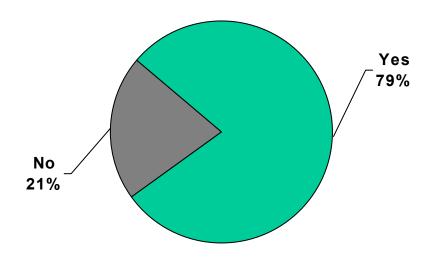


Evaluation of Information

Awareness of Information about Springfield Interchange Construction

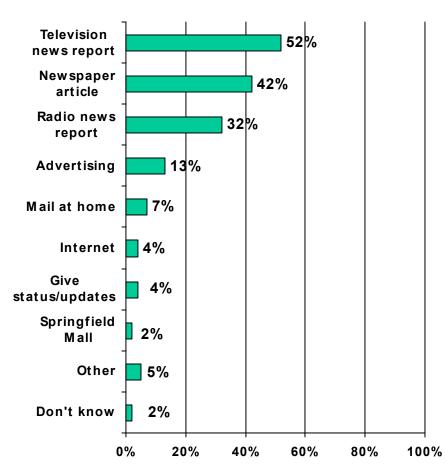
Information about the Springfield Interchange construction has effectively reached the audience. Nearly 8 of every 10 (79%) commuters have seen or heard something about the Springfield Interchange construction.

Data from Q30a: Still thinking about the construction at the Mixing Bowl, that is, the Springfield Interchange, have you seen or head any mention of the construction on television, radio, in the newspaper, mail that you received at home or any other source of information?



Awareness of Specific Information about Springfield Interchange Construction

Most frequently, commuters have heard something about the construction on television news reports (52%) and in newspaper articles (42%). About one-third (32%) have heard something on a radio news report. Four percent (4%) mentioned the internet.

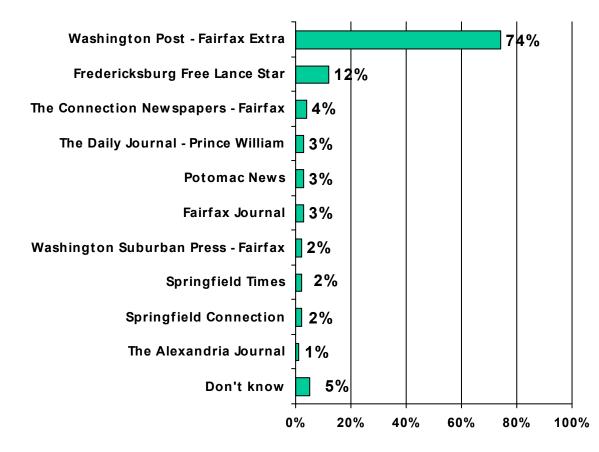


Data from Q30b: What did you see or hear?

Source of Newspaper Article

The Washington Post – Fairfax Extra is the most commonly cited newspaper source of information (74%).

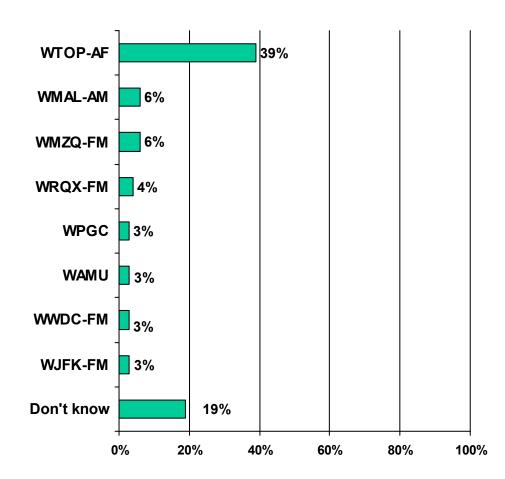
Twelve percent (12%) read something about the construction in the *Fredericksburg Free Lance Star.*



Data from Q30c: In what newspaper was that article?

Source of Radio News Report

WTOP – AF is the most frequently mentioned radio source of information. Over one-third (39%) of those who indicated they had heard a radio news report about the construction said that they had heard it on WTOP – AF.



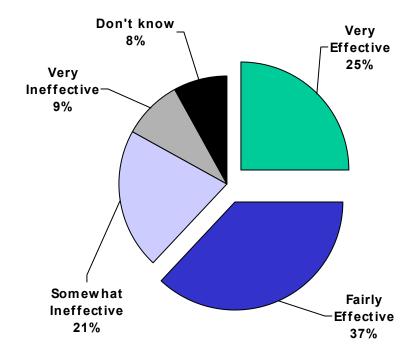
Data from Q30d: On which radio station was that news report?

Effectiveness of Information

Commuters in Northern Virginia believe the information they have received about the Springfield Interchange construction is effective. Two-thirds (62%) of these commuters reported that the information is effective. Twenty-five percent (25%) said that the information is <u>very</u> effective. Another 37% said the information is fairly effective.

Only 9% said that the information that they have received is very ineffective.

Data from Q31: Thinking about all of the information you may have seen or heard about the Mixing Bowl construction, how would you describe the effectiveness of the information? (READ LIST.)



Reasons for Information Effectiveness Rating

- Effective -

Commuters are most appreciative of information about the construction because it alerts them to upcoming changes. Over one-third (36%) of those who said information about the construction is effective said that it alerts them to changes.

Commuters also said (13%) the information is effective because they have been able to make changes – alter their commute – in response to the construction.

Eleven percent (11%) rated the information effective because it helps them see how the project is helping.

In spite of rating the information favorably, commuters still see opportunity for VDOT to improve its communication efforts because they mentioned ways that the information can be improved. Fifteen percent (15%) would like the information to be more timely and less confusing. Ten percent (10%) would like the information to be more accurate.

Data from Q32: Why do you say that?

	<u>%</u>
Alerts to upcoming changes	36
Information not timely or is 15	
confusing	
Altered commute	13
Can see how project is helping	11
Need more detail	10
Information accurate	6
Doing a good job	5
Don't know	5

Based to those who said information is effective.

Reasons for Information Effectiveness Rating

- Ineffective -

Commuters are most critical of information about the construction because it is not timely or is confusing (28%) and because they need more detail (20%).

A few criticized the information because it does not seem to make the "problems" any better. Seven percent (7%) said the information does not change their commute time. Six percent (6%) said there are still traffic problems.

Information not timely or is 28
confusing
Need more detail
Doesn't change commute time
7
Still have traffic problems
6
Don't know
6

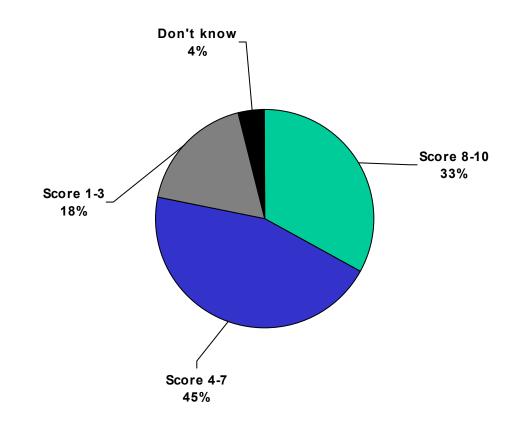
Data from Q32: Why do you say that?

Based to those who said information is ineffective.

Rating of VDOT's Efforts to Help Motorists

A third of commuters (33%) rate VDOT favorably on its efforts to help motorists (score of 8-10 on 10-point scale). Nevertheless, there is opportunity for VDOT to improve its performance on this measure. Eighteen percent (18%) do not rate VDOT favorably (score 1-3) on its efforts to help motorists. About half (45%) of commuters rate VDOT's efforts in the moderate range (4-7). VDOT's mean score on this measure is moderately favorable (6.1).

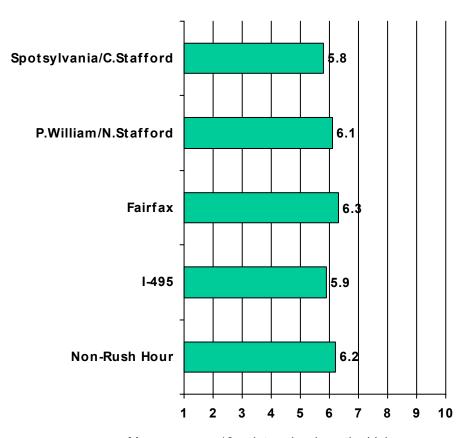
Data from Q33: VDOT has provided a variety of different types of information to motorists regarding the construction at the Springfield Interchange. On a scale from "1" to "10," where "10" is the best rating you can give and "1" is the lowest rating, how would you rate VDOT on its efforts to help motorists avoid delays and other traffic frustrations, during the construction?



Rating of VDOT's Efforts to Help Motorists - By "Corridor" -

VDOT's rating is most favorable among commuters from Fairfax County (mean of 6.3), non-rush hour (6.2) and Prince William / Northern Stafford (6.1). VDOT is rated less favorably by Spotsylvania / Central Stafford (5.8) and I-495 commuters (5.9).

Data from Q33: VDOT has provided a variety of different types of information to motorists regarding the construction at the Springfield Interchange. On a scale from "1" to "10," where "10" is the best rating you can give and "1" is the lowest rating, how would you rate VDOT on its efforts to help motorists avoid delays and other traffic frustrations, during the construction?

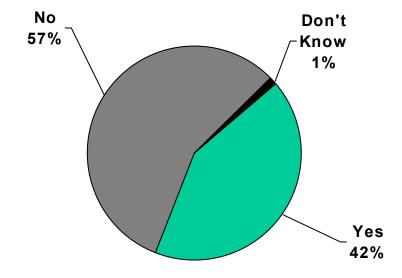


Mean score on 10-point scale where the higher the score, the more favorable the rating.

Awareness of Web Site

Slightly less than half (42%) of Northern Virginia commuters are aware of the Springfield Interchange web site.

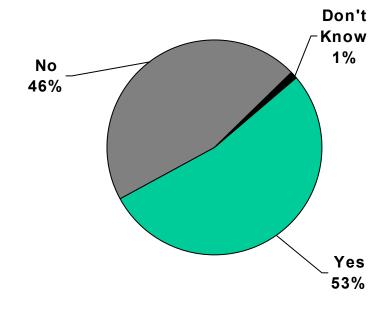
Data from Q35a: VDOT maintains a web site with information and updates about the Springfield Interchange construction project. Prior to my mentioning it, did you know about the web site?



Ever Visited Web Site

Of those aware of the web site, over half (53%) have visited the site.

Data from Q35b: Have you ever visited the Springfield construction web site?

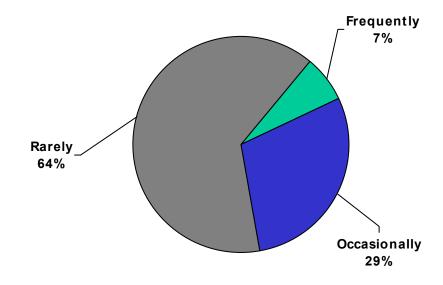


Based to those aware of web site.

Frequency of Visiting Web Site

Of those who have visited, most (64%) have no need to visit it more often than "rarely." About one-third (29%) visit the web site "occasionally." Seven percent (7%) visit the site "frequently."

Data from Q35c: How often do you visit the web site? (READ LIST.)



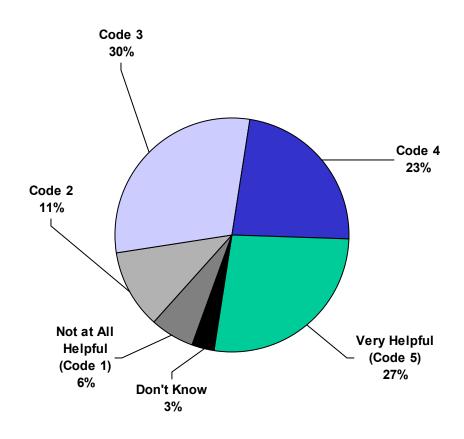
Based to those who have visited web site.

Helpfulness of Web Site Information

One-half (50%) of those who have visited the web site have found the information to be helpful. In fact, over one-fourth (27%) said the information was "very helpful."

Only a few visitors (17%) to the web site have not found the information to be particularly helpful. In fact, 6% said that the information has not been at all helpful. These commuters may have been looking for some specific information that was not on the web site.

Data from Q35d: How helpful is the information on this web site? This time, please use a scale of "1" to "5" for your answer, where "1" is "not at all helpful" and "5" is "very helpful."



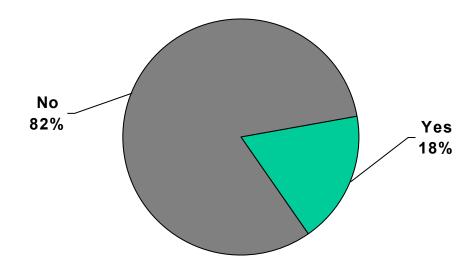
Mean score=3.6 on a 5-point scale. Based to those who have visited the web site.

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Ever Visited Springfield Mall Store

Eighteen percent (18%) of the commuters have ever visited the Springfield Mall store.

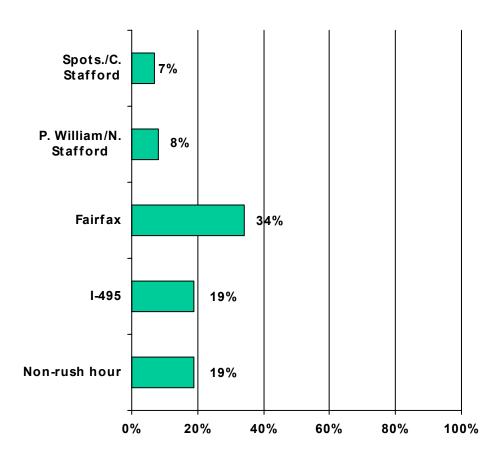
Data from Q36: VDOT has an information and commuter store in Springfield Mall which provides information about the construction at the Springfield Interchange and transportation options. Have you ever visited the store?



Ever Visited Springfield Mall Store - By "Corridor" -

Fairfax County residents are most likely to have visited the Springfield Mall Store. One-third (34%) of Fairfax County commuters reported that they have visited the store.

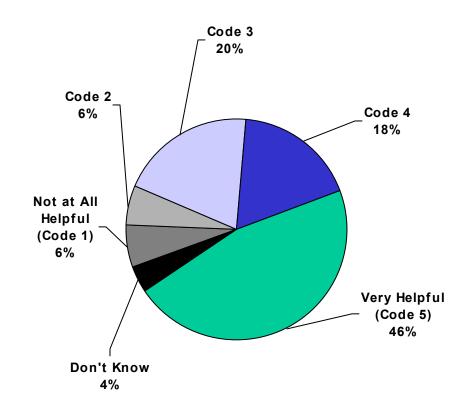
Data from Q36: VDOT has an information and commuter store in Springfield Mall which provides information about the construction at the Springfield Interchange and transportation options. Have you ever visited the store?



Helpfulness of Information at Store

Information at the store is helpful to commuters. Nearly one-half of those who have visited the store (46%) reported that the information at the store was <u>very</u> helpful. In contrast, only 6% indicated that the information at the store was not at all helpful.

Data from Q37: How helpful was the information provided at the store? Please use a scale of "1" to "5" for your answer, where "1" is "not at all helpful" and "5" is "very helpful."

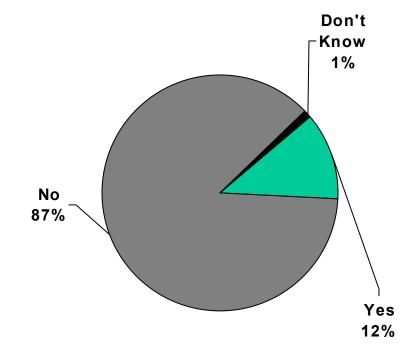


Mean score=4.0 on a 5-point scale. Based to those who have visited store.

Mode Switch Based on Store Information

Twelve percent (12%) of those who have visited the commuter store at the Springfield Mall have switched to a different transportation mode as a result of information they received at the store.

Data from Q38: Based on the information you received at the store, did you try an alternate mode of commuting?

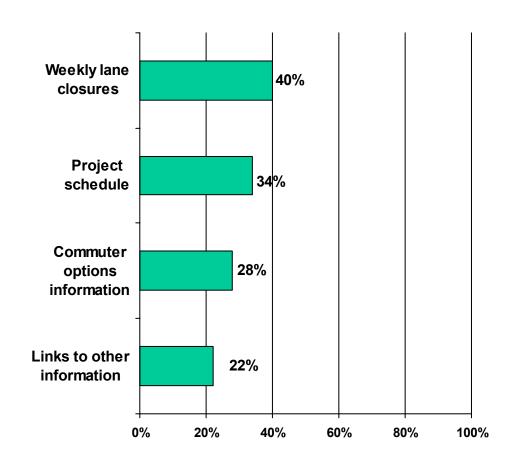


Based to those who have visited the store.

Helpfulness of Specific Types of Information

Four out of every ten commuters (40%) report that information about weekly lane closures is helpful to them. Thirty-four percent (34%) – one-third of commuters – report that project schedule information is helpful. A fourth (28%) indicate that commuter options information is helpful to them. Links to other information are helpful to nearly one-fourth (22%) of commuters.

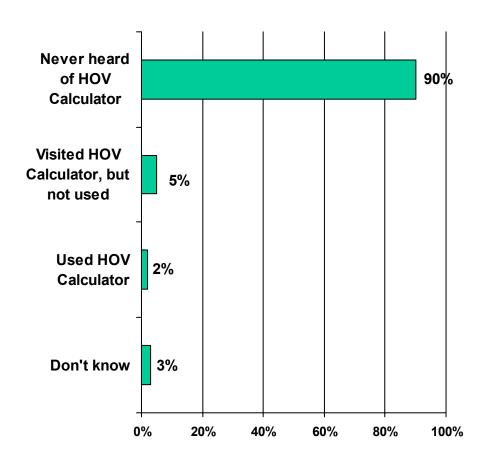
Data from Q39: Thinking about all of the information you might have seen or read regarding the construction project, I'd like to know how helpful specific types of information have been to you. Please tell me how helpful each of the following types of information has been. For your answers, use a scale of "1" to "5" where "1" means "not very helpful" and "5" means "very helpful."



Familiarity with HOV Calculator

Seven percent (7%) of Northern Virginia commuters have heard of the HOV calculator – 5% have visited the website and 2% have used the calculator.

Data from Q40a: Which of the following best describes your familiarity with the HOV calculator, also known as HOV calculator.com?



Familiarity with HOV Calculator

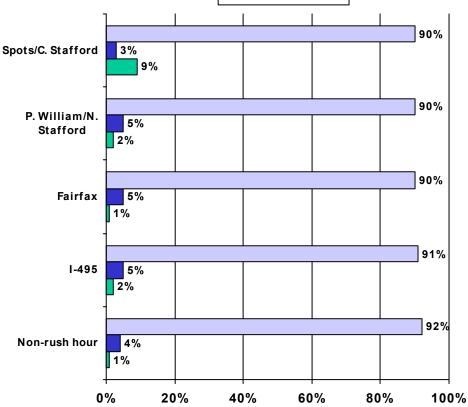
- By Corridor -

likely to be familiar with the HOV calculator. More than one

Commuters from Spotsylvania / Central Stafford are most

out of ten (12%) of this group have visited or used the

calculator.



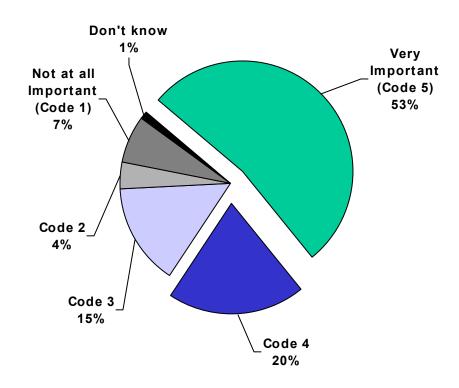
■ Never heard of

■ Used Calculator

■ Visited but not used

Importance of VDOT Keeping Commuters Informed About Construction

Data from Q40: How important is it that VDOT keep you informed about this and other similar construction projects? Please use a scale of "1" to "5," where "1" means "not at all important" and "5" means "very important."



Ways Like to Receive VDOT Information About Springfield Construction

Commuters are open to receiving information about the Springfield Interchange construction in a variety of ways:

Radio (82%)

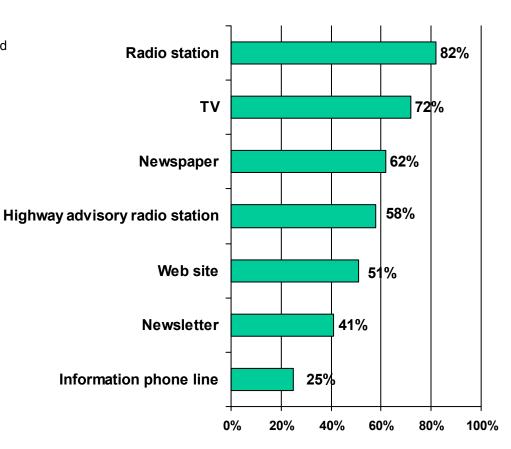
TV (72%)

Newspaper (62%)

Highway advisory radio (58%)

They seem less interested in using an information phone line (25%).

Data from Q64: Again thinking about the Mixing Bowl/Springfield Interchange construction, there are several ways that VDOT informs commuters about the construction. Do you like to get VDOT updates from ... (READ LIST.)

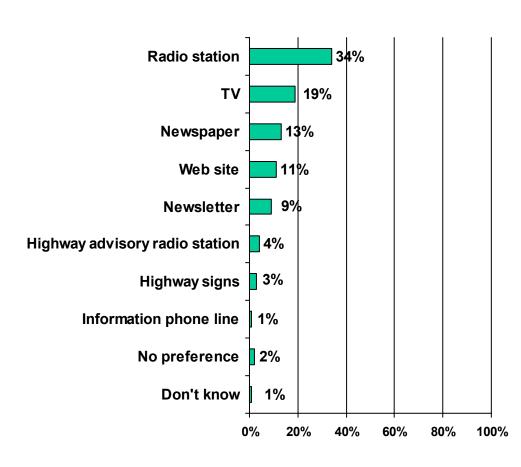


One Preferred Way of Hearing About Springfield Construction

The most preferred way of hearing about the Springfield construction is by radio. One-third (34%) of the commuters said that radio is their preferred way of receiving information.

Second is television (19%), followed by newspaper (13%), web site (11%) and newsletter (9%).

Data from Q65: What one way do you prefer to hear from VDOT about construction at the Springfield Interchange or Mixing Bowl?



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One Preferred Way of Hearing About Springfield Construction

- By Age -

Younger commuters are more likely to prefer hearing about the construction on the radio than are older respondents (those aged 55 and older). Older commuters are slightly more likely to prefer being informed about the construction through the newspaper.

Data from Q65: What one way do you prefer to hear from VDOT about construction at the Springfield Interchange or Mixing Bowl?

	Under					65+
	<u>25</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>older</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Radio Station	38	35	33	35	28	21
TV	21	19	17	19	18	39
Newspaper	13	8	12	14	16	29
Web Site	9	14	13	10	7	-
Newsletter	5	11	10	8	9	2
Highway advisory radio station	4	4	5	3	5	-
Highway signs	3	3	3	3	4	-
Information phone line	1	-	-	1	1	-
No preference	4	1	1	2	6	9
Don't know	-	1	2	1	2	-

Conclusions and Strategic Implications

Conclusion: Commuters in Northern Virginia have made changes in the way they commute through the Springfield Interchange area. More than one out of every ten – 14% – of commuters who travel regularly through the Springfield Interchange have switched travel modes to adjust to the construction.

These changes have occurred at a variety of different times. Some commuters anticipated the start of the construction and switched prior to the onset of construction. Others were triggered to switch by the start of construction. Still others appeared to need to experience the discomfort caused by the construction before changing their mode of travel. These commuters switched after the construction began.

<u>Implication</u>: Commuters will change their commute behavior – given the right situation, a reason for changing and useful information. But, change does not occur automatically or instantaneously. Anticipate future transportation mode changes – given that commuters perceive that they have a reason to change.

<u>Conclusion</u>: Springfield Interchange commuters have relied upon a variety of different types of commuter options in adjusting to the construction at the Interchange. <u>No one type</u> of transportation meets the needs of all commuters.

<u>Implication</u>: In order to maximize the number of commuters who switch to an alternative form of transportation, continue to develop and market a variety of different types of transportation alternatives. Identifying and understanding the needs and preferences of commuters are essential to offering the right transportation options and programs.

<u>Conclusion</u>: New programs and transportation options have helped to bring about change. Park-and-Ride lots, commuter parking, new train and bus service, a reduced cost rail pass, and new OmniRide Express bus service have all helped commuters to adopt new transportation alternatives.

<u>Implication</u>: Continue to introduce new services and programs that make alternative transportation choices attractive to commuters. Ensure that new services and programs align with the needs and preferences of commuters. A "layered" approach consisting of numerous transportation options and incentives is necessary to meet the diverse needs and preferences of this commuter universe.

<u>Conclusion</u>: While commuters who have opted for an alternative commute mode often cite pragmatic reasons for doing so (e.g., it saves time and can use the HOV lanes), they also seem to be sensitive to traffic congestion in and of itself. They often cite "traffic" itself as the reason for their choice. Others cite the need to decrease the traffic volume. Still others express a need to "escape" from the traffic congestion.

Implication: Explore commuter perceptions of the impact of traffic congestion on them as individuals and on "society." Assess the extent to which response to traffic itself may provide a foundation for message development. It may be that a form of "traffic consciousness" is developing. Explore the extent to which this perspective is growing in Northern Virginia. Assess the power of this idea or other "traffic congestion" perspectives in convincing commuters to try alternate forms of transportation.

Conclusion: Delays caused by the construction at the Springfield Interchange do not seem to be as severe as anticipated by commuters. In 1998, prior to start of the construction, nearly one-half (49%) of Springfield Interchange commuters thought their commute would increase by at least 30 minutes. Today, only 23% say their commute has increased by at least 30 minutes.

<u>Implication</u>: Explore ways to use this "positive" experience to enhance the appeal of alternative transportation. Explore ways that this information can be used to enhance the image of VDOT and VDOT communications.

<u>Conclusion</u>: Commuters do not seem to recognize completely the eventual benefits of the construction. They rate the construction project only moderately favorably in terms of its potential for easing traffic congestion, increasing safety and making it easier to travel through the area.

<u>Implication</u>: Recognize that traffic congestion in Northern Virginia may be such a constant that it is difficult for commuters to imagine it to be any other way. Explore ways that communications can be used to build support for the project – and belief in the value it will contribute.

<u>Conclusion</u>: Commuters want to be informed about traffic issues, particularly in regard to the Springfield Interchange project. In fact, over half (53%) of commuters believe that it is <u>very</u> important that VDOT keep them informed about the construction.

<u>Implication</u>: Continue to talk to commuters, as well as other Northern Virginia residents. Messages should include: transportation options and opportunities, progress and stages of the construction, VDOT's role in communicating to the public, and the value of the project to the community.

<u>Conclusion</u>: Commuters rely on a variety of media for transportation and commuting information. Radio, television, newspaper and highway advisory radio are all used by commuters.

<u>Implication</u>: Do not rely on one medium to reach commuters. Instead, recognize the value of layering communications through a variety of media to build a consistent and persistent communications program.

Conclusion: The commuter information store at the Springfield Mall is filling an important commuter need and plays a key role in disseminating information about the construction and transportation choices. Commuters who have visited the store report that it has provided them with useful information. It has played a role in helping commuters make transportation mode switching decisions. Its reach is localized, however, in that those who have visited the store are more likely to reside in Fairfax County than in areas more distant.

<u>Implication</u>: Recognize the important role of the commuter store in reaching and informing commuters about their options. Continue to support the store and learn from its success. Explore ways of growing the "store concept" by establishing comparable stores to meet commuter needs and impact commuter choices in similar situations.

<u>Conclusion</u>: Telework is an attractive option to commuters in Northern Virginia. Nearly one out of ten commuters (8%) have opted to telework – at least part of the time.

There is additional potential for adoption of telework. Forty-four percent (44%) of commuters are interested in telework and work for employers who would permit teleworking. Thirty-three percent (33%) say they are not interested in telework, but work for employers who permit teleworking.

<u>Implication</u>: Explore ways to convert commuters to teleworking. Identify and market to the "triggers" that would convince those who are already interested in teleworking. Identify and understand what is needed to convert those who are not currently interested in teleworking but work for employers who permit employees to adopt this option.

Appendix